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ABSTRACT

This monograph reports on a study carried out by the Board of Teacher Education into the amount and nature of research undertaken by Queensland teacher educators and the forms of support available for this research. It was anticipated that the information would be useful in helping to identify major trends in teacher education research and making proposals on the question of funding. Study data were collected by means of a quesionnaire survey of teacher educators in Queensland. A summary of survey results was prepared for a research symposium convened in November 1987. The first part of the report describes the study in context and presents the findings of the questionnaire survey. Part B summarizes the proceedings of the symposium. The quesionnaire forms and all tables of results referred to in the text are appended. Lists of the symposium participants and the names of members of the research committee are also appended. (JD)

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RESEARCH BY TEACHER EDUCATORS IN QUEENSLAND 1986-87

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INTRODUCTION

This monograph reports on a study carried out by the Board of Teacher Education into the amount and nature of research undertaken by Queensland teacher educators and the forms of support available for this research. The study was intended as a first step towards the identification of future priorities for teacher education research in Queensland and the exploration of the most effective means of responding to these priorities.

In the first stage of the study data were collected by means of a questionnaire survey of teacher educators in Queensland. A summary of the survey results was prepared for a Research Symposium convened by the Board of Teacher Education in November 1987. Further analysis of the data was carried out for this report, which also includes a brief report of the Symposium.

The report is presented in two main parts. Part A describes the study in context and presents the findings of the questionnaire survey. Part B summarises the proceedings of the Symposium. There are four appendixes to the report: Appendix I contains the questionnaire forms used in the survey, Appendix II contains all tables of results referred to in the text, Appendix III provides a list of participants in the Research Symposium and Appendix IV gives a list of the names of members of the Research Committee.

PART A: QUESTIONNAIRE RESULTS

CHAPTER 1

RATIONALE, AIMS AND METHOD

Rationale for the Study

The role of colleges of advanced education, particularly their research role, and the distinction between colleges and universities as to their involvement in research have been the subject of much recent discussion. A major traditional distinction between universities and colleges is the greater emphasis accorded to research in universities. Resources and facilities for research have traditionally been much greater for academics in universities than for those in colleges of advanced education.

Despite these traditional distinctions, Australian Bureau of Statistics figures (Australian Bureau of Statistics, 1986) and a recent survey by the Australian Council for Educational Research (ACER) (Jones and Ainley, 1987) indicate a steadily increasing involvement in research and development by colleges of advanced education.

The Green Paper on higher education released by the Federal Government late in 1987 (Higher Education, 1987) includes among its proposals an end to the distinction between universities and colleges of advanced education for funding purposes. Under the proposals, universities and colleges would compete for funds on the same basis, giving colleges the right to a loading for research on their recurrent funds.

The 1986 report of the Commonwealth Tertiary Education Commission (CTEC) on Effectiveness and Efficiency in Higher Education recommended that CTEC continue not to include provision for research funding in the general recurrent grants for colleges of advanced education and that resources for research continue to be concentrated in universities. The Board of Teacher Education, in its report Project 21: Teachers for the Twenty-First Century (released in May 1987) viewed this recommendation with concern and saw it as undervaluing research in the teacher education sector of colleges of advanced education. The Board's view was given added weight by its observation that in Queensland, about 80 per cent of formal teacher education occurs in colleges of advanced education.

Reasons offered by the Board for supporting research by teacher educators in both colleges and universities were:

- Teacher educators need to contribute as scholars to advances in their own specific disciplines and in the discipline of education and teaching. It is vital that they contribute to the knowledge and skills base of the teaching profession and to the research validation of teaching processes.
- Teacher educators are uniquely placed to undertake, in collaboration with practising teachers, research and development work which will lead to the devising and monitoring of innovations in schooling and to determining the conditions required for the effective implementation of innovations.

- Research and development work [on various aspects of teacher education] is urgently required.
- Research on selection of entrants to the profession is in but its infancy and as Schalock (1979) indicates, teacher preparation programs are the most effective contexts for this research, providing, as they do, 'naturally occurring contexts'.
- Student teachers need, in the light of the competencies and orientations they will require later as teachers, to experience a research and enquiry environment as they prepare for teaching (Judge, 1982). As the National Inquiry into Teacher Education (NITE) (1980, p. 9) concluded:

> 'Because of our stress on the educational needs of the teacher as a professional person, we feel that teacher education should be undertaken in institutions where scholarship and scientific inquiry are held in high regard ...'.
> (Board of Teacher Education, 1987, p. 142)

Developments within Queensland also make this project a timely one. Early in 1987 the Queensland Minister for Education had announced a proposal to amend the state's Education Act. The proposed amendments included the replacement of three boards (the Board of Advanced Education, the Board of Secondary School Studies and the Board of Teacher Education) with a new council for the accreditation of post-compulsory courses. One of the reasons advanced for this change was a perceived overlap in research functions between the Board of Teacher Education and other bodies carrying out educational research (e.g. the State Department of Education and the higher education institutions). However, the Department's research is not specifically directed towards teacher education and much institutional research is largely concerned with internal matters or is of a parochial nature. The proposal could be seen as questioning the need to carry out research with implications for the development of teacher education in Queensland as a whole, and to foster research by teacher educators and teachers in significant areas of teacher education.

The NITE report (1980) noted the activity of the Queensland Board of Teacher Education in the field of research, 'particularly in promoting comparative studies, in reviewing the current state of the art and in identifying needs for new program development'. The NITE Committee considered that 'widely representative and expert bodies [such as the Board of Teacher Education] have particularly valuable roles to play in relation to policy research in teacher education' (p. 213). The report of a recent independent Review of the Influence of the Board's School Experience project (the RISE study) commented that participants in the Review 'felt that it was extremely desirable that the Board maintain a research arm to maintain standards for teaching throughout the state' (Bartlett, Beasley, Butler, Cook, Lucas, McLaughlin and Muir, 1986, p. 8). Indeed, the Review report concluded that the Board should take a more systematic approach to considering which research projects should be undertaken. The report argued that:

> 'One need evident from the data of the RISE study is that the BTE might ... plan research activity over a three or five year period. The origin of the School Experience Project seems to have been the recognition by the BTE Research Committee that it had not done any research in this area and that it was important to do so. This apparently unplanned response to a felt need might be less productive than a critical evaluation of what research (and for what purposes) is needed for (a) the Board's purposes, and (b) for effecting improvement in school experience practices.' (Bartlett et al., 1986, p. 79)

Aims

At the time the present study was undertaken, the Board of Teacher Education

expected that it would cease to exist at the end of 1987. (The Education Act Amendment Bill passed the second and third readings in Parliament two days before the Symposium reported herein was held.) It was seen as desirable that an agenda for future teacher education research and a structure or process for implementing this in the Board's stead should be established before the Board's demise. The survey and symposium reported in this monograph were seen as contributing to that end. More specifically, the survey aimed to obtain information about the nature of and support for research activities by academic staff in teacher education schools and departments in Queensland colleges and universities. It was anticipated that the information would be useful for several purposes, e.g.:

- helping to identify major trends in teacher education research;
- suggesting emerging agendas for research;
- making proposals on the question of funding.

Method

The questionnaires

Issues to be investigated in the study were drawn from the literature on research by staff in higher education institutions, from the questionnaire used in the survey of Current Educational Research Projects, Funding and Needs undertaken by the Australian Association for Research in Education (AARE) in 1987, and from discussions by the Board's Research Committee. From these issues, two sets of questions were developed: one for all academic staff in college of advanced education and university teacher education schools and departments (the Teacher Educators questionnaire), and one for the heads of the schools/departments (or of the institution in the case of McAuley College). The ten heads were each asked to complete both questionnaires.

The Teacher Educators questionnaire was divided into two sections. Part A sought information on:

- the respondent's position and institution and the length of time he/she had been employed in each;
- the respondent's background in research;
- supervision by the respondent of student research;
- the respondent's views on the extent to which his/her institution promoted research through various means;
- the respondent's views on a number of general matters relating to research;
- the three topics within teacher education which the respondent saw as the most deserving of research over the next few years.

Space was provided for any further comments the respondent may have had on Part A.

Respondents were asked to complete Part A even if they had not recently been engaged in research.

Part B of the questionnaire, which respondents were directed to complete only if they had undertaken research since the beginning of 1986, asked for information on:

- the time spent by the researcher on research and how this compared with the time he/she would like to spend;
- the nature of the research on which researchers had worked since the beginning of 1986;

- the extent, sources and adequacy of funding received for research;
- the dissemination of results and the outcomes of this research.

Both forced-choice and open-ended questions were used in both parts of the questionnaire. Space was available at the end of the form for further comment on any aspect of research by teacher educators.

The questionnaire for heads of schools/departments consisted of a brief list of questions concerning the administration of research at the institutional and school/department levels. The questions concerned the role, composition and organisational place of any institutional or school/department research committee, the nature of any institutional or school/department research policies and themes, the role of the school/department in formulating institutional research policy, the place of research in the school/department, the resources available for research, factors impeding research, the head's role in encouraging research, and his/her views as to whether there should be more research in the school/department.

A copy of each questionnaire is included as Appendix I.

Timing

Initial discussion of the project by the Board's Research Committee took place in May 1987. Draft questionnaires were discussed at the June meeting and these were redrafted for the meeting the following month. The final version of the questionnaires was sent out in the second week of August, respondents being asked to reply by the end of that month. A reply-paid envelope was enclosed with the questionnaire. At the end of the first week in September, a follow-up letter with a duplicate questionnaire was sent to those who had not yet responded. A second follow-up was forwarded just over two weeks later.

Sample

University and college of advanced education schools and departments with major responsibility for teacher education in Queensland were identified. Lists of academic staff currently employed in these schools and departments were obtained from the relevant institutions.

A questionnaire was sent to every full-time member of these staffs - a total of 561, distributed as indicated in Table 1 (Appendix II).

Of the 561 questionnaires sent out, 23 per cent went to university staff and 77 per cent to college staff. A total of 65 per cent of questionnaires were mailed to staff in the various Schools of Brisbane College of Advanced Education listed in Table 1. After follow-up letters, the final overall response rate was 70 per cent. Response rates ranged from 58 per cent for James Cook University to 80 per cent for McAuley College and the Department of Human Movement Studies, University of Queensland.

CHAPTER 2

PREVIOUS RESEARCH

Support for Research in Higher Education Institutions

As early as 1975, it was being argued that many colleges of advanced education had 'reached the stage in their development when the Australian government should provide financial support for applied research in colleges of advanced education as it already does for research in universities' (Stock, 1975). As well as calling for government financial support for research by college of advanced education staff, Stock argued for increased provision of postgraduate student awards, recognising that 'one major stimulus for staff involvement in research comes with the provision of research-based postgraduate programs'.

The Committee of Inquiry into Education and Training (the Williams Committee), reporting in 1979, recommended the maintenance of the Tertiary Education Commission's (TEC) policy of not including in recurrent grants to colleges a component for research. Under this policy, research in colleges was funded mainly by grants from government research bodies or other outside bodies, and was in areas where the college had a reputation for special skill.

The NITE report (1980) noted that most financial support for teacher education research is indirect (through general recurrent grants and postgraduate award programs, and allocation of staffing). The most prominent source of direct support for research on teacher education was then the Educational Research and Development Committee (ERDC) and the NITE Committee recommended an increase in the annual budget of this body to enable it to mount a coordinated program of research and development in teacher education. The abolition of the ERDC in 1982 considerably reduced the available funding for educational research.

Hewitson reported in 1979 that although college staff were eligible to apply for grants from research funding authorities such as the Australian Research Grants Scheme (ARGS), the National Health and Medical Research Council (NHMRC) and various research boards, their success in obtaining grants was severely limited by:

(i) lack of a research infrastructure in colleges of advanced education relative to universities;

(ii) lack of opportunity to exercise research expertise and build personal prominence in their field of research;

(iii) lack of federal funding authority support for research projects in the social sciences and humanities; and

(iv) lack of coincidence of perceived research needs between college applicants and funding bodies.

The report of the recent ACER study (Jones and Ainley, 1987) on resesarch in colleges of advanced education shows that research and development activities now occupy a significant place in many of these institutions, although the extent of these activities is still less than that in universities. Research in colleges is mainly of the type described as 'applied research' and 'experimental development' whereas university research is mostly 'pure and strategic basic research'. The ACER survey found that funding for research and development within colleges of advanced education has been small but that externally provided funding increased steadily over the period 1983 to 1985. It was also found that Commonwealth initiatives to encourage research and development in colleges of advanced education (e.g. the Key Centres for Teaching and

Research Program) have been successful. Small amounts of money are provided by some institutions from their own resources to encourage staff to initiate research programs. The study found that the prevailing attitudes within schools and departments in colleges of advanced education appeared to be an important influence on the extent of research that was undertaken.

Similarly, most universities have formed their own companies specifically to market inventions devised by their staff or to encourage private companies to contract academics as consultants. Universities qualify as approved research institutions, which means that companies contracting academics for research projects qualify for a 150 per cent tax deduction on the money spent, provided benefits flow back to the companies (Lawson, 1987).

Jones and Ainley (based on ABS figures) report that education was among the fields of study in colleges of advanced education where the proportion of funds derived from sources other than institutional funds was highest.

Concerning organisational support for research, it was found that organisational structures included a range of research and consultancy centres (the most prolific structure used in colleges of advanced education to support research), a small number of public companies and a range of research committees. Some schools or faculties had adopted procedures which facilitated an involvement with research irrespective of the existence of a designated research centre. Twenty-six of the forty-one colleges responding to the ACER survey had at least one research centre (Jones and Ainley). Their mode of operation varied considerably.

The same number of institutions had formal research committees. Most commonly this was a committee of the academic board. Six were committees of the principal's office and two were committees of the governing council. The main functions of research committees were:

- to encourage staff to undertake research and development;
- to allocate general college funds for staff research and development;
- to develop policy and procedures for the conduct of research and development;
- to promote the research and development image of the institution.

Jones and Ainley also investigated the extent to which various methods were used to promote research and development in colleges of advanced education. No one method appeared to be used much more extensively than others. The most used methods were:

- provision of information about research and development in the annual report;
- institutional support in terms of funds, equipment and staff time to undertake research.

The least used methods were:

- a research company associated with the institution;
- the provision of postgraduate research programs.

Other methods listed were:

- expecting research activities as a criterion in promotion;
- research consultancies established within the institution;
- involvement of government and industry representatives on college committees;
- publication of a 'Research Report'.

Jones and Ainley suggest possible ways to enhance the research capacities of colleges of advanced education by making use of existing structures within colleges. These include: (i) making some funds available to each college of advanced education for the support of research work through research committees (in effect a widening of the availability of institutional research grants); and (ii) expanding and broadening the Key Centres for Teaching and Research program, to provide continuity of base funding.

Role of Research in Higher Education Institutions

Discussing the matter of research by those teaching in higher education raises the question of the relationship between teaching and research. A tension between these two activities is a central problem in institutions of higher education. Although many believe that the academic role should involve both teaching and research, choices must frequently be made. Individuals as well as departments or schools, institutions and higher education systems must decide the relative emphasis to be placed on these activities given limited time, energy and money (Halsey and Trow, 1971). As Jones and Ainley point out, different assumptions about the relationship between teaching and research can lead to different views of the extent to which research should be supported in colleges of advanced education.

Research and teaching can be seen as complementary, mutually-reinforcing activities. For example, Plimer (1987) writes that in his experience 'it is the best and most active research workers who are the most inspiring and up-to-date teachers', and Ramsey (1987) states 'Good teaching is illuminated by good research ...'. Whitburn, Mealing and Cox (1976) report that in the view of the Council for National Academic Awards and other major organisations involved with the development of polytechnics in the United Kingdom, research is complementary to teaching, not an alternative to it: ' ... participation in research enables a teacher to keep up with current developments in his field and to introduce students to research techniques'. However, others are of the view that while research activity very often supplements and enlivens teaching, it should not be assumed that a teacher who does not engage in research is thereby a poorer teacher (Caine, 1969). Indeed, Ledwidge (1979) argues that research should perhaps be regarded 'simply as staff development activity that will suit some members of staff better than others'.

The recommendation by the CTEC (1986) that no provision be made for research funding in general recurrent grants for colleges of advanced education was based on the view that the concentration of research resources in universities represents the most effective utilisation of the limited government resources available for research. This view is associated with a conception of the role of colleges of advanced education as primarily one of teaching at the undergraduate and postgraduate diploma level. The CTEC report makes no mention of any possible relationship between teaching and research, except in the postgraduate area where it is acknowledged that students benefit from interaction with research leaders.

The question of research in teacher education, particularly the research role of colleges of advanced education, was raised in many submissions to the NITE. A degree of support for research in colleges was indicated by these submissions, in which the claim was made that teaching in both universities and colleges is enhanced by involvement in research. It was also noted that both types of institutions were recruiting staff with research skills, giving the colleges an increasing potential for involvement in research activity.

The NITE Committee accepted the view that colleges should be involved in research and favoured the removal of impediments to this such as inadequate resources and staff time. The Committee's general view was that applied research is a necessary function of colleges of advanced education and that members of staff should be encouraged to follow their own professional interests in research into teaching and teacher education.

In the study by Jones and Ainley, most of the heads of school interviewed argued that an active program of research and development could enhance the quality of education offered in colleges of advanced education in several inter-related ways: fostering of scholarship, keeping abreast of new developments and maintaining links with the forefront of practice.

Heads of school interviewed by Jones and Ainley argued that colleges of advanced education were well placed to contribute to research which focused on curriculum and teaching practice, especially at primary school level. This focus was seen as being different from that of university schools of education in which research was more directed to the foundation disciplines of education.

Using information provided in returns from colleges to the ABS (1986), Jones and Ainley examined the pattern of research and development activity across different fields of study. Education appeared to have a moderately large research and development effort in total but, being a large field in terms of staff numbers, this arose from a relatively small effort per staff member.

Cushman (1977), in a review of the decision-making process in teacher education in the United States, considers that after teaching, the second major function of colleges of education must be research. This may be focused on the problems of schools, or on problems of teacher education. Cushman states that the former should be done by colleges of education to enable them to stay attuned to the market for their graduates. The latter should also, he claims, be carried out by teacher education faculty 'in order to provide energy for self-renewal'. Colleges of education are, notes Cushman, 'the only agency equipped and motivated to conduct such research.' (Colleges in the U.S. are generally incorporated into universities.)

Teacher educators - appointment level, academic qualifications, involvement in research

An Australia-wide study of teacher educators was undertaken in 1979 by Beswick, Harman, Elsworth, Fallan and Woock (1980). In that study, a subsample was identified of 728 university and college of advanced education teacher educators who either worked in a faculty or school of education, or who both taught mainly in education **and** contributed to pre-service or postgraduate education courses leading to a recognised award. This subsample was distributed across levels of appointment as follows: above senior lecturer: 9 per cent, senior lecturer: 25 per cent, lecturer: 52 per cent, below lecturer: 14 per cent.

Over fifty per cent of teacher educators in Beswick et al.'s sample had an academic qualification at the postgraduate level - 18 per cent had doctorates and 38 per cent had masters degrees. Doctorates were held by relatively more university staff than college staff. Beswick et al. comment on the marked increase since the early 1970s in the level of formal academic qualifications of college of advanced education staff. (In 1973 only about 25 per cent of staff surveyed in single-purpose teachers colleges had a postgraduate qualification.) Since 1979, qualifications of teacher educators have continued to improve. An analysis of the qualifications of teacher educators in Queensland in 1986 showed that 68 per cent had a postgraduate qualification, 44 per cent having masters degrees and 24 per cent having doctorates (Board of Teacher Education, 1987).

A difference was found by Beswick et al. between college and university teacher educators in the amount of time spent on research: university staff spent about 21 per cent of their working week on research and writing, college of advanced education staff about 7 per cent. As Beswick et al. comment, this difference reflects common expectations and differences in employment contracts (those of university staff specify that they are to engage in both teaching and research). Time for research

was rated as a very important or essential aspect of work by 86 per cent of university staff and 60 per cent of college staff.

In the United Kingdom, a study reported by Whitburn, Mealing and Cox (1976) found that in polytechnics (the equivalent of our colleges of advanced education) as compared with universities, much less staff time was given to personal research. On average, university staff had devoted eleven hours each week to their own research; by comparison polytechnic staff had spent only three hours in this activity. The authors comment that while figures indicate that polytechnic staff had heavier teaching loads which did not allow time for personal research, a number of other factors affect the prevalence of research, for example, encouragement of individual research by departments and institutions, and the extent and type of funding for research.

A study by Yarger, Howey and Joyce (1977) in the USA found that 'only a third of the teacher education faculty have ever authored, co-authored or edited a book. Less than 50 per cent have written an article during the past three years, and only 20 per cent reported that they have written three or more during that period' (p. 37). Reflecting this lack of emphasis on scholarly activities, less than one-third of the teacher educators involved in the same survey viewed research and scholarship as a primary consideration in tenure and promotion decisions.

In a study on levels of research productivity of faculty in schools, departments and colleges of education in the US, Guba and Clark (1978) found an extremely low record of scholarly accomplishment. Less than 20 per cent of the 1367 education units in higher education had faculty involved in education research and development.

Another study in the US (Schwebel, 1982) found that education faculty were overworked in performing the teaching function and consequently had less time than other faculty for the production of knowledge. According to this self-report comparative study, education faculty published more books but fewer articles than faculty in agriculture and the biological and social sciences. Education faculty reported devoting 10 per cent of their work time to research and scholarly writing, whereas staff in agriculture and the biological and social sciences reported devoting more than 22 per cent to such endeavours. Education faculty also spent much more time on administration than the other sets of faculty (31 per cent cf. 14 per cent). Schwebel concludes this difference probably reflects the extra work entailed in having a far larger number of specialties and separate programs in education, as well as the extra administrative work involved in field activities. Combining the unfavourable faculty/student ratio in education with this additional administrative burden, it is, he states, not surprising to find lower productivity of knowledge.

Watts (1984), in criticising the competence of teacher education faculty in United States colleges, notes that a major weakness of these teacher educators is their lack of scholarly activity. Citing the Yarger, Howey and Joyce study, he concludes that scholarly activities are given a low priority by both administration and faculty.

Lanier and Little (1985) note that teacher educators - what they are like, what they do, what they think - are typically overlooked in studies of teacher education. Based on a review of the modest number of studies available on teacher educators (mainly but not exclusively American), Lanier and Little hypothesise that social class variables are potentially of major importance in understanding the intellectual character and social position of those most closely associated with teacher education. Studies indicate that a disproportionately large number of teacher educators come from lower middle-class backgrounds. From their childhood experiences at home, educational opportunities at school, and restrictive conditions of work as teachers before coming to higher education, teacher educators are very likely to have obtained conformist

orientations and utilitarian views of knowledge. They therefore often assume professional tasks and routines that demand minimal intellectual flexibility and breadth and require instead conformity and limited analysis. This is associated with a lack of research orientation among academic staff in education compared to those in other areas.

Research areas

Several studies have attempted to identify priority areas for research in teacher education.

The NITE Committee considered that teacher education research in Australia was 'deficient in most areas'. It identified a number of priority areas for research, including initial selection, decentralised selection of teachers, induction, recruitment from minority groups, and enclave programs for Aboriginal students, as well as the following:

Contextual research

- expectations of education held by different groups in the community and by different educational clienteles, with particular reference to the exploration of within-group differences;
- research and evaluation of different forms of community involvement in schools;
- evaluation of new divisional structures in schools and of their implications for teaching and teacher education (for example, middle schools, senior secondary schools, integrated curriculum in the junior secondary years);
- community and professional expectations pertaining to teacher education;
- identification of the criteria of effective teaching, and research into relationships between teacher education and teacher behaviour and between teacher behaviour and student learning;
- documentation and analysis of the changing roles of teachers; and
- evaluation through ethnographic and other studies of new institutional models and structural arrangements in teacher education.

Program research

- longitudinal studies of the socialisation of teachers, covering the stages of recruitment, preparation and the early years of teaching, with particular reference to the acquisition of professional attitudes and values;
- evaluation of pre-service, induction and in-service programs and studies of the relationships among these phases of teacher development;
- evaluation of the relative effectiveness of various forms of in-service education and of the coordination of the in-service endeavour;
- monitoring the responsiveness of teacher education programs to changes in school programs, for example, the core curriculum;
- evaluation of staff development programs for teacher educators;
- appraising methods for the selection, training and utilisation of supervisors of teaching practice;
- in-depth investigation of teacher education needs and practices in particular content areas and dimensions, for example, music, career education, education for a multicultural society;
- research into the effectiveness as teachers of mature age entrants to teacher education programs;

- evaluation of the contribution to the preparation of effective teachers of work experience before and during pre-service teacher education programs;
- evaluation of programs of work experience for teachers;
- evaluation of the contribution to quality teacher education of centres of excellence and centres of in-service specialisation; and
- ethnographic studies of the relationships between teachers and diverse groups of pupils.

Thus a very wide range of aspects of teacher education were seen to need researching.

The Committee saw a need for changes in the structural arrangements for teacher education research and saw a role for a new broadly representative national advisory body in setting research agendas, reviewing and disseminating findings and interpreting the needs and results of research.

In the United States in the late 1970s, the Texas Research and Development Centre for Teacher Education began an eighteen-month project to develop a research agenda for teacher education in the 1980s (Hall and Hord, 1981). The project included extended discussions among people with different professional responsibilities and research interests, the commissioning of substantive papers, and an invitational conference.

A conceptual framework developed for the conference contained two independent dimensions: continuum (teacher education as a continuing process) and topics. Seven major topic areas that cut across the continuum were identified: content, process, professionals as learners, collaboration (among the various roles and areas), context (social, political, economic, cultural), research (present strategies, promises, limitations of methodologies) and change/dissemination (collaborative and effective sharing of research results, facilitation of practical application).

The project culminated in a set of recommendations for a national agenda for teacher education research and development and for the manner in which these research areas should be studied.

The national agenda identified eight priority issues for research during the next several years:

1. Teacher educators as practitioners (e.g. characteristics, training received versus that needed, how and what training is carried out by the teacher educator and what roles accrue to them, effects on students).
2. The teaching/learning process (specific foci might include: effects of the process in different teacher education programs, relationship to teacher characteristics, and use of a wider set of criterion variables about what entails 'good' teacher education practice).
3. The content of teacher education (what it might or should be; e.g. criteria should be determined for selection and organisation of content).
4. The process of teacher education, including alternative models and factors moderating effectiveness.
5. The influence of various contexts of teacher education (social, cultural, political, economic).
6. Professionals as adult learners (syntheses of existing work as well as extensions and further exploratory effort).

7. Collaborative models (including conditions which facilitate or hinder collaborative efforts, and factors which maximise their usefulness).

8. The change process within educational institutions (including development of formal mechanisms for the dissemination of information and for the application of research knowledge to teacher education practice).

It was recommended that this research should:

- be carried out across the continuum from pre-service to induction to in-service;
- begin by analysing, synthesising and documenting the existing knowledge base;
- emphasise descriptive research as a complement to improvement research;
- use studies of varied length and design;
- stress interaction, using a collaborative teaming approach;
- be preceded by a cost-benefit analysis in relation to potential of the research to produce useful, practical findings.

Hall and Hord report that a major outcome of the project was the linking of researchers, teacher educators, teachers and policy makers in a continued exchange of ideas and joint research ventures.

Looking towards the future, Hall and Hord call for a greater degree of professional self-examination among teacher educators. This, they note, must include the establishment of an identity for the discipline of teacher education to which all those involved in the enterprise (even though they may be associated with some subject matter area, some aspect of schooling or some other social science field) give primary allegiance.

Hall and Hord claim that teacher education does not make effective use of its existing knowledge base. Consideration should therefore also be given, they suggest, to the reasons for this and to ways of using existing knowledge.

Another framework for use in classifying and summarising research on teacher education programs, and in investigating and identifying critical research questions concerning teacher preparation, is presented by Katz and Raths (1985).

The authors identify eleven interacting parameters - broad classes of variables - which characterise and define teacher education programs. These parameters are:

1. Program goals
2. Characteristics of teacher education candidates
3. Characteristics of staff members
4. Course and program content
5. Course and program methods
6. Program duration and timing
7. Program ethos
8. Admission, graduation and certification regulations
9. Institutional resources
10. Evaluation procedures
11. Impacts of the program.

Katz and Raths express the hope that 'the ordering of available literature and the generation of new questions suggested by the framework ... will aid in the development of useful theories [concerning the relationships between variables] to guide the next steps in the field' (p. 14).

Lanier and Little (1985) in a review of research on teacher education organised around the four 'commonplaces of teaching' - teachers (in this case, teacher educators), students (in this case, prospective and practising teachers), curriculum and milieu - make the following observations with implications for future research:

1. Teacher educators - 'what they are like, what they do, what they think - are typically overlooked in studies of teacher education' (p. 528).

2. The research on teacher education students over the past decade, while relatively plentiful, tends to be 'desultory in nature, poorly synthesised and weakly criticised' so that 'a serious need remains for improved study and scholarship' (p. 535). Research is needed, for example, on: this population's unique demographic characteristics; factors influencing teacher supply and demand perceptions; the academic qualifications and cognitive processes of the population (including the extent to which course objectives and instructional discourse revolve around the desire of the majority of students to be told precisely and concretely what to do and how to do it); study motivations and expectations; and the effects of prolonged service in teaching.

3. In the area of curriculum, research is needed on: what prospective teachers typically encounter or learn from academic study, especially that in their general studies and subject matter concentrations (as opposed to pedagogical studies); the extent to which curricula engender a liberal-professional as opposed to a technical orientation to teaching; the unpredictably negative learnings from field experience and how these limitations can be overcome; possible explanations for the largely arbitrary, technical, fragmented, shallow nature of the teacher education curriculum; and the codification, preservation and transmission of the lore of successful practice.

4. Better understandings are needed of the communities responsible for teacher education (i.e. higher education, school and profession), and of reasons for their loose and sometimes antagonistic relationships with one another; regarding the influence of professional organisations on teacher education, there is little research that is insightfully tied to the central issues confronting the faculty, students and curricula of teacher education.

Specifically concerning Australian research on teacher education, Tisher (1987), like Lanier and Little, notes that teacher educators are rarely the main focus of a study, a situation that he considers must be rectified in future. Tisher considers the following areas of teacher education to be among those needing further research in future:

- the ideologies and cognitive schema of participants in teacher education;
- the effects of changes in the timing and sequencing of program content;
- long-term effects of different supervisory training programs;
- modes of fostering professional development and of encouraging teachers to master particular teaching models.

He also considers the knowledge base for teacher education would benefit from replications of previous studies, action research incorporating highly developed critical perspectives, and the obtaining of observational data (as opposed to questionnaire or interview data) on programs at all levels.

CHAPTER 3

BACKGROUND OF RESPONDENTS

Three-hundred-and-ninety-one teacher educators returned completed questionnaires; this represents 70 per cent of those to whom the questionnaire was sent. A small number of questionnaires (ten) was returned unanswered. The response rate for teacher educators in universities was 64 per cent, and for those in colleges of advanced education was 71 per cent.

Position and Institution

The majority of respondents (78 per cent) was employed in colleges of advanced education.

Forty-nine per cent of respondents were lecturers in colleges and 8 per cent were lecturers in universities. Eighteen per cent were senior lecturers in colleges and 10 per cent were senior lecturers in universities. Overall then, more than half (57 per cent) of respondents held the position of lecturer and another 28 per cent were senior lecturers. Of the remaining 15 per cent, nearly half - 6 per cent of the total sample - were heads of departments within schools in colleges, and the others were distributed fairly evenly among the following groups: university professors, university associate professors, college principal lecturers, senior tutors or tutors in colleges and senior tutors or tutors in universities (see Table 2).

About a third of respondents had been in their current positions for up to three years (Table 3). Half had been in the position for up to six years. Almost 10 per cent of respondents had been in their present position for more than fifteen years. The longest time reported was twenty-one years (one respondent). A greater proportion of college respondents than university respondents had been in their positions a very short time (one year or less) or a very long time (more than fifteen years).

The distribution of respondents among institutions is indicated in Table 4. More than 60 per cent of respondents were employed at Brisbane College of Advanced Education. The two universities accounted for one-fifth of the total number of respondents.

Respondents had been at their institutions for periods ranging from less than one year up to thirty-one years (see Table 5). Twenty per cent had been in their institutions for up to three years, and 46 per cent for up to ten years. Therefore more than half of the teacher educators had been employed at the same institution for more than ten years.

Background in Research

Academic qualifications

Eighty-three per cent of respondents reported having at least one academic qualification in the education area (this includes awards in Education, Teaching, Educational Studies, Educational Administration, Religious Education and Special Education) (see Table 6). More than half of the teacher educators held qualifications in the arts/humanities area, and about one-quarter held awards in the natural sciences.

Seventy-one per cent of respondents reported they had at least one Masters degree (see Table 7). About a third of respondents (62 per cent of university respondents and 26 per cent of college of advanced education respondents) indicated they had a doctoral degree.

Twenty-nine per cent of respondents (including a greater proportion of university respondents than college respondents) indicated that they had obtained at least one degree solely by research (Table 8). Seventy per cent had obtained at least one degree by a combination of coursework and research.

Research experience prior to present position

Many teacher educators (41 per cent) did not reply to the question concerning the number of years they had been involved in research prior to taking up their present appointment. The question was answered by a greater proportion of university than college staff who returned questionnaires. Of those who did answer the question, nearly half had been involved in research for up to five years, and 75 per cent for up to ten years, before taking up their present position. Ten per cent had been involved for more than fifteen years.

Sixty-one per cent of respondents to this question listed areas in which they had undertaken research, and levels at which they had been involved, before taking up their current positions. The most commonly listed areas within education were teacher education, special education and related topics (including mainstreaming of handicapped children), educational psychology, and curriculum. About 20 per cent of the areas listed were not directly in education.

The level of involvement most commonly listed (Table 9) was 'team member' or 'joint researcher'. The next most common were 'project director', 'sole researcher' and 'research assistant'. Small numbers listed 'postgraduate student' or 'undergraduate student'.

Membership of educational research associations

Some 13 per cent of those who returned questionnaires did not answer this question. Of those who did answer, more than half reported they did not belong to any educational research associations (Table 10). The association of which the greatest number of respondents were members was the Australian Association for Research in Education (AARE) (60 persons). Other associations to which significant numbers belonged were: South Pacific Association for Teacher Education (SPATE) (33 persons), Queensland Institute for Educational Research (QIER) (20), American Educational Research Association (AERA) (16), Mathematics Education Research Group of Australia (MERGA) (15), and Higher Education Research and Development Society of Australasia (HERDSA) (10). Small numbers (three to eight people) listed the Australian College of Education, Australian Curriculum Studies Association, Australian Psychology Society, Sociological Association of Australia and New Zealand, Australian Council for Health and Physical Education Research and Australian Association for Special Education. Another forty-five associations were listed by one or two people each, although it is doubtful whether certain of these could be termed educational research associations.

A greater proportion of college respondents than university respondents did not belong to any educational research association: 62 per cent of college respondents compared with 36 per cent of university respondents were not members of any association. In the case of AARE, 33 per cent of teacher educators in Queensland universities reported being members, while only 13 per cent of college teacher educators were members.

CHAPTER 4

RESEARCH UNDERTAKEN IN 1986 AND 1987

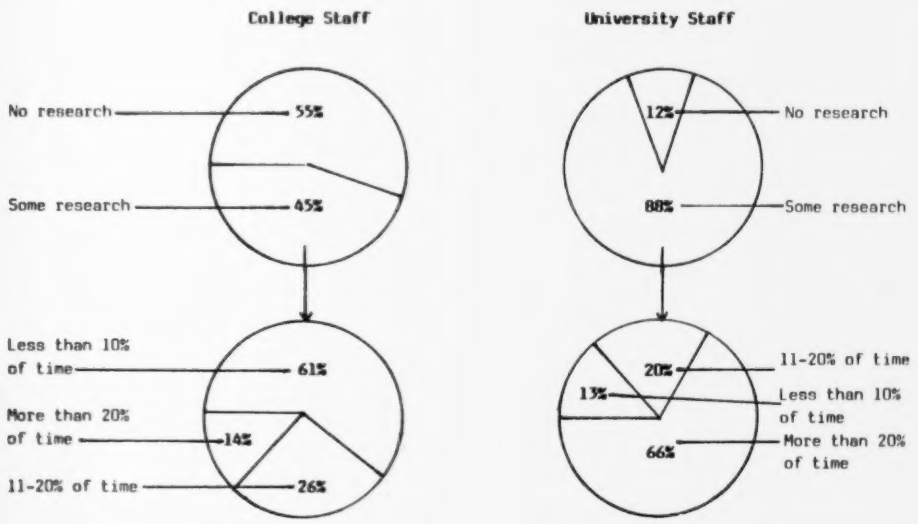
Two-hundred-and-eleven (54 per cent) of the total 391 respondents replied to Part B of the questionnaire, which was to be completed only by those who had undertaken research since the beginning of 1986. The percentages given in the first three of the following sections are based on these 211 respondents, called hereinafter 'researchers'. Of this group, 64 per cent were from colleges of advanced education and 36 per cent from universities. Of the university people who returned questionnaires, 88 per cent had been engaged in research; of the college of advanced education respondents, 45 per cent had undertaken research in 1986 or 1987.

Time Spent on Research

Forty-four per cent of the researchers reported they had spent, on average since the start of 1986, less than 10 per cent of their professional working time on research (Table 11). Twenty-four per cent had spent 11-20 per cent of their time on research, 20 per cent had spent 21-40 per cent and 10 per cent had spent 41-60 per cent. A few people had spent more time than this.

College of advanced education researchers were much more likely than university researchers to spend less than 10 per cent of their time on research. Of the college researchers, 61 per cent (83 people) had spent less than 10 per cent of their professional working time on research. On the other hand, about two-thirds of university researchers had spent more than 20 per cent of their working time on research. (See Display 1 below.)

Display 1: Proportion of time spent on research



The great majority of researchers, both college of advanced education and university, said they would like to spend more time on research (Table 12).

The most common reason given by teacher educators for wanting to spend more time or the same amount of time on research (Table 13) was that teaching and research interacted so both were important (e.g. it was claimed that research was necessary to inform teaching or that each complemented the other). The next most common reason was that more time spent would improve the quality of research. In explaining why they wanted to spend more time or the same amount of time on research, many people gave reasons why they did not currently spend more time: almost 40 per cent of those giving explanations said that other tasks (particularly teaching and administration) at present took up all or most of their available time, or left only fragmented time for research.

The proportions of researchers citing particular reasons differed between university and college staff. In particular, relatively more university than college staff reported that other tasks took up all or much of the available time. More college than university researchers mentioned the interaction of teaching and research. The importance of research for professional development was not cited by university researchers but was listed by an eighth of the college researchers.

Nature of Research

Researchers were asked to list the titles and aims of up to three research projects or activities on which they had worked since the beginning of 1986. Respondents to this question listed a total of 383 projects (an average of 1.9 projects each) (Table 14, left-hand column).

About 13 per cent of the projects were not directly in education, although about half of these were in areas related to education (e.g. psychology, ideology, social attitudes).

A wide spectrum of areas within education was covered. A relatively large proportion of projects was in the educational psychology and child development area. As far as school curriculum areas are concerned, those most studied were in the language arts areas, mathematics or numeracy, and social studies. Other areas being studied included particular education levels or populations, other disciplines within education (e.g. sociology of education, evaluation, curriculum), and a wide variety of miscellaneous aspects of teaching, education or learning.

About 18 per cent of projects had teacher education as a central theme - mostly the pre-service stage, but also in-service and induction. A full list of the teacher education projects is shown in Table 15. In all (allowing for multiply-listed projects), fifty-three research projects on teacher education were reported as being undertaken in Queensland higher education institutions in 1986 and 1987. Thirteen of these focused on student teacher characteristics, thirteen on in-service teacher education and eight were concerned with with pre-service teacher education in general. Five projects were on school experience, four were on induction, three on selection to courses and two were concerned directly with course content.

The types of research methodology most often used were case study or ethnographic methods, and survey (see Table 16). Used about half as often were reflective or critical methods and experimental or quasi-experimental methods. Other approaches to research (action research, historical research and methodological studies) were used less frequently.

As Table 17 shows, respondents were most often undertaking these projects as sole researchers. This was particularly the case with college projects. For smaller, but

still large, proportions of projects (particularly university ones), respondents were involved as joint researchers (27 per cent of projects), or as the principal researcher or project director (19 per cent of projects). A smaller proportion of projects were being undertaken by teams of researchers.

Thirty-six per cent of activities listed were reported to have been completed.

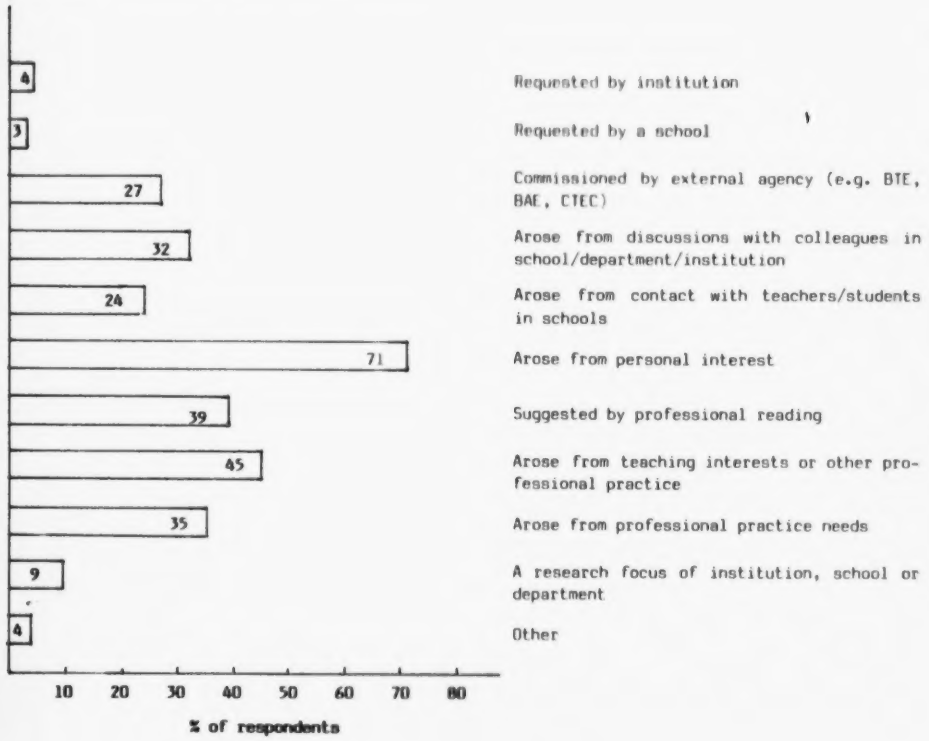
Reasons for Undertaking Research Activities

Respondents were given a number of possible reasons for undertaking research and asked to indicate which were applicable to each of the activities they had listed (Table 18). Display 2 below depicts the results in graph form.

Easily the most common single reason was personal interest (recorded as a reason for about 70 per cent of projects). Other popular reasons were: arose from teaching interests or other professional practice, suggested by professional reading, arose from professional practice needs, and arose from discussion with colleagues in school/department/institution (32 per cent to 45 per cent of projects each). The least common of the listed reasons were requests from the institution or a school.

Some differences were apparent between college and university projects. For example, contact with school teachers was more often given as a reason for college

Display 2: Reasons projects were undertaken



college projects than for university projects. Professional reading was more frequent as a reason for undertaking a university project than as a reason for a college project.

Thirty-two researchers gave reasons other than those listed. The most common of these was that the activity was undertaken for an academic qualification (mainly Ph.D.).

Applications for Research Funding

Seventy-five per cent of all university respondents and 15 per cent of all college of advanced education respondents had applied for research funding since the beginning of 1986 (Table 19A). Less than half of those who applied (44 per cent of university applicants and 37 per cent of college of advanced education applicants) had had any of their applications rejected (Table 19B). Overall, 11 per cent of questionnaire respondents (43 people) had had an application for research funding rejected since the beginning of 1986. Of these, more than half (57 per cent) had still undertaken the proposed research activity (Table 19C). Teacher educators in universities were more likely than those in colleges of advanced education to undertake research for which they had had a funding application rejected.

Supervision of Student Research

About two-fifths of all respondents reported they had supervised a student research project since the beginning of 1986. University respondents (73 per cent) were considerably more likely than their college of advanced education counterparts (30 per cent) to have done this. Some 370 projects were reported upon. Topics within education covered all levels of education (but particularly primary, secondary, and special education), most subjects in the school curriculum (particularly physical education, literacy/reading/English, and mathematics), and most discipline areas within education (particularly history of education and educational administration). A small number of projects (fewer than 5 per cent of the total) were directly concerned with teacher education. These were on general or non-specific areas of teacher education (four) or teacher development (three), on in-service education (two), on school experience (two) and on pre-service teacher education in general, the content of pre-service programs, and teacher librarianship (one each). Some 10 per cent of project areas listed were not in the education field.

Table 20 indicates that the majority of projects supervised by respondents were at the postgraduate level, especially those supervised by university staff.

CHAPTER 5

FUNDING AND OTHER SUPPORT FOR RESEARCH

Promotion of Research

All respondents were asked to indicate the extent to which their institution promoted research through each of a number of specified means (see Tables 21 and 22).

The major ways institutions promote research, according to respondents' perceptions, are:

- use of research as a criterion in promotion;
- provision of information about research in the annual report;
- use of background in research as a criterion for appointment;
- provision of study leave.

The least common ways institutions promote research are perceived to be:

- association of a research company with the institution;
- allowance for research time in the allocation of teaching loads;
- provision of support staff to assist in research.

College of advanced education respondents on the whole were much less likely than university respondents to report that any of the means of research promotion was used to a great extent. To illustrate: 61 per cent of university respondents, compared with 9 per cent of college respondents, reported that research was promoted to a great extent through the provision of study leave; 90 per cent of university staff, compared with 14 per cent of college lecturers, said that research was promoted to a great extent by being used as a criterion in promotion.

Ways of promoting research other than those listed on the questionnaire were indicated by eighteen respondents. The way most frequently mentioned was provision of conference or travel leave or assistance (seven people). Three people mentioned the establishment of research or interest centres and two the provision of support or secretarial staff. The following were listed by one person each: computing facilities; ad hoc courses on aspects of research (e.g. workshop on SPSS); staff development; periodic review of staff and departments, including their research output; expectation of publication and external grants; personal support, general encouragement; consultancies at request of private industry; existence of an institutional research committee.

Fifteen respondents (all but two from colleges) commented on the degree to which their institution promoted research; most of these comments were negative (e.g. 'Research is something you do in your own time, at your own initiative and at your own expense'). Others indicated that use of a particular means of promotion varied according to staff member (e.g. whether on contract or not), department or faculty (Education being reportedly worse off than others), or type of research. It was also noted that particular ways listed were no longer used or were under threat.

Funding for Research

Respondents who had been the sole researcher or a principal researcher for the activity in question were asked about funding of the research they had undertaken.

Sources of funding

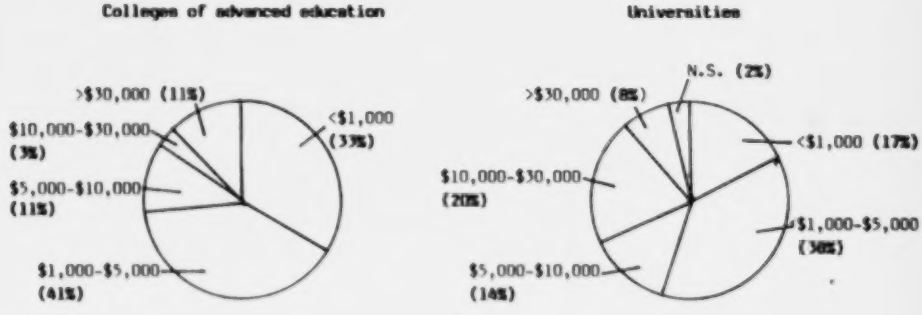
Researchers were requested to indicate the extent to which each of a number of possible sources of funding had been used for each research activity. The results are provided in Table 23. The most frequently used sources of funding were: personal resources, institutional funds and Commonwealth funds. The least used sources were private sector funds and state government funds. Institutional funds and, to a lesser extent, state government and Commonwealth funds, were more likely to have been used for university than for college projects. Personal resources were used to a greater extent for college research.

Amount of external funding

Researchers were asked to estimate the total amount of external funding received for each project. Ninety-six people (46 per cent of researchers) indicated they had received some amount of external funding for at least one research activity.

Table 24 shows that, of projects reported to have received external funding, about a quarter had received less than $1,000. About 40 per cent had received amounts between $1,000 and $5,000. College of advanced education researchers were more likely to have received smaller amounts (up to $5,000) of funding, while university people were more likely to have received larger amounts. This is illustrated in Display 3.

Display 3: Proportion of projects which received external funding



Thirteen projects were reported to have each received amounts of $30,000 or greater. In addition, an amount of $150,000 was reported as the total received by a researcher for a variety of projects of unspecified number and nature. The highest amount reported to have been received for any one project was $200,000. The total amount of funding received by projects in the $30,000 or more category was $1,180,500. The projects receiving such funding were on the following topics: the implementation of a secondary school curriculum/assessment innovation, school leadership development, programs for intellectually disabled persons, life skills of adolescents, the Special Education Services Program, parameters of language, reading in the middle school, construction of children's behaviour, the role of secondary education in Australia, employment for severely handicapped persons, and women in science and technology.

To estimate the total amount of funding received by respondents, the midpoint of each of the first six ranges of funding amounts in Table 24 was multiplied by the relevant frequency. The amount obtained in each of these six ranges was then summed and added to the total amount obtained in the more than $30,000 category. This gives a total estimated amount of just over $2 million ($2,010,500).

Importance of funds to project

Asked to indicate the extent to which the availability of funds had been necessary to fulfilling each project's aims, those responding to the question indicated that for nearly half the projects they were reporting on, funds were necessary 'to a great extent' (Table 25). Funds were necessary 'to some extent' for a quarter of projects, and necessary 'to a small extent or not at all' for more than a quarter.

More than half (56 per cent) of those answering said that the scope of at least one of the projects or activities in which they had been involved had been restricted by a lack of funds. Of the 185 projects which were reported as having their scope restricted by lack of funds, one-quarter were so restricted to a great extent and two-thirds to some extent (Table 26). University projects were more likely than college projects to have been greatly restricted by lack of funds.

Adequacy of funding

Respondents were asked whether funding was adequate or inadequate for each of four aspects of research (data collection, equipment, analysis of results and dissemination of results) (Table 27). Funding was reported to be adequate for most (62-65 per cent) of the activities reported upon. This was more often the case for university than for college projects as far as analysis and dissemination of results were concerned.

Funding for aspects other than those specified on the questionnaire was seen as adequate for about half of the projects undertaken by the thirty-four people responding concerning these 'other' aspects. The most commonly cited 'other' aspect was payment of research assistants or other professional staff (eleven people). Others were word processing/typing/secretarial assistance (five people), computing facilities (two people) and time release (two people).

Research undertaken without funds

One-hundred-and-seventeen researchers (79 from colleges and 38 from universities) indicated that they had undertaken research without seeking specific funding for the research.

Comments of School/Department Heads

Information was sought from the head of each of the schools and departments of teacher education on support for research at the institutional level and at the school/department level. Responses were received from seven of the ten heads (five from colleges and two from universities). Not all respondents answered all the questions asked and the amount of detail in answers varied.

Research committees

The heads were asked (i) whether there were institutional and school or departmental research committees, and if so, (ii) what were their roles, (iii) what was their composition, and (iv) what was their place within the organisational structure.

(i) At both universities and one of the colleges, an institutional research committee existed; at one other college, no institutional research committee had

been established. At one university there was also a research committee for each of the five groups of faculties within the institution.

At the school or departmental level, all but one of the responding heads reported that a research committee was established, or was in the process of being set up. One of these was a campus rather than a school committee.

(ii) The role of the institutional committee at one university was to formulate policy and procedures for the application and distribution of funds within the university as a whole; the head reported that a separate Special Research Grants panel was appointed each year to evaluate major proposals funded from this source.

The aim of the institutional committee at the one college possessing such a committee was to encourage and facilitate research, development and consulting activities within the institution by providing appropriate funding and advice.

The roles of school or departmental committees varied from one to another but all had a role in formulating policy on research for the school/department. Other functions of these committees included the following: allocating research funds available to the school, or providing small grants for pilot studies, advising staff on the development of research projects (e.g. on research design), providing typing and clerical assistance and professional research assistance, supporting staff participation in national and international conferences, financial assistance for higher degree students with their research, coordinating a range of ongoing research activities in regard to quantity and timing, identifying the school's major research directions, implementing policy on research and evaluation studies undertaken on the campus, identifying sources of external funds, maintaining a register of campus research, preparing reports, generally promoting research and development by school staff, approving projects proposed by researchers within and outside the school, and promoting dissemination activities (e.g. research colloquia). No one committee performed all these functions.

(iii) At one university, the institutional research committee comprised representatives of the Academic Board who also represented the five groupings of faculties within the university. At the college with an institutional committee, this was made up of a representative of each of the institution's five schools as well as the institution's bursar.

The composition of school or departmental research committees was reported for only three schools/departments. In one case the committee was said to include representatives of the five academic groupings of staff in the department; in another, to be made up of a small group of interested staff; and in the third, to be determined by the head of school based on expressions of interest from school staff.

(iv) The place of the committee in the organisational structure was reported for one institutional committee (a committee of Academic Board), and for three school committees (these were all said to be responsible or advisory to the head of school, or to the campus principal's advisory council).

Policy on research

School/department heads were asked whether there was a research policy at the institutional and at the school level.

Both the responding university heads indicated that there was an institutional policy on research. In both cases, it was a formal requirement (of employment) that staff undertake research and there was a centrally-funded special projects scheme which was aimed largely at younger members of staff.

In the colleges of advanced education, one head reported that there was an institutional policy on support for research by staff and that funding was authorised by the director or chief executive officer.

One of the university heads reported no school or department policy apart from the activities of the research committee. The other university head and one college head indicated that while there was no formal policy, the school/department actively supported research (e.g. by running seminars and funding activities). Two college heads indicated that school policies were being developed. Another said that the school implemented the spirit of the college's general policy, and another mentioned only the activities of the school research committee.

Research themes

The questionnaire to heads asked whether the school or department had particular research themes or ideas on which it was currently working.

Only one head reported that his school had research themes. These had been developed through a series of short residential seminars conducted in 1986 and 1987. A second head commented that, although the school had no research themes as such, initiatives had been made to promote and coordinate research activity within the context of the five research themes identified by the Australian Council for Educational Research. A third head considered it was undesirable to promote general themes because of the diversity of interests and expertise of school staff.

Place of research

The heads commented on the place of research in their school or department.

A university head said that research was central to the activities and well-being of the department.

College heads also viewed research as very important, one saying it was essential that both staff and students regard themselves as research oriented, another that research complements teaching and most staff should be involved, and another that research should have a significant and central place. Two of these heads referred to action research, one commenting that 'most research should probably be small scale, exploratory and of the action type, an integral part of one's daily activities', and the other that of particular relevance to the school was the extent to which the goals of what the Australian Research Grants Committee terms Applied Research (the solution of everyday practical problems) have been incorporated in action research.

Resources for research

When asked what resources were available for undertaking research within the school or department, both university heads indicated that resources were adequate, although one mentioned increasing pressure on time available for research as staff numbers decline.

College heads reported that research resources were meagre: no recurrent funds were available for research, there were no research assistants, resources for research were largely limited to those which could be redeployed from teaching programs. However, they indicated that assistance was often provided by way of clerical services, printing

and computing facilities (two heads) and that some cash generated through other activities could be provided to support staff research (one head).

Inhibiting factors

School and department heads reported the following factors as impeding the conduct of research: the time available to staff or teaching loads, especially school experience supervision; the availability of financial resources; and the lack of research assistance.

One head commented:

> 'The major constraint upon the conduct of research in the school is that research is not a category upon which the school (or college) is funded. This has both direct and indirect implications for the conduct of research. The direct outcomes of having no internal funds to support research can be offset when individual staff obtain support from outside funding agencies (e.g. ARGC). However, these agencies assume certain levels of infrastructural support by the institutions themselves. Even if an individual staff member is successful in applying for external funds, therefore, the school (college) is unable to provide the necessary support assumed under the terms of the grant (i.e. resources related to administration, clerical assistance, computing, library holdings, etc.).
>
> The indirect, longer-term outcomes of not being funded for research activities involve:
>
> (a) attitudes relating to the role of research in the school (college);
>
> (b) teaching and general administration commitments and the limited time able to be devoted to research (at the individual and institutional level);
>
> (c) limited relevance of research as a criterion for career advancement;
>
> (d) limited opportunity to select staff on the basis of background research capabilities, and limited opportunities for staff to develop appropriate research skills.'

Role of head in encouraging research

The questionnaire sought the heads' comments on their own role in encouraging research within the school.

A university head responded that it was expected that the head would provide active research leadership as well as ensuring that research funds were properly allocated and that the development of a number of themes was fostered.

Heads of schools in colleges mentioned leadership by example; provision of facilitating structures and support systems; encouraging staff to participate in research, to seek funding nationally, to attend conferences and to seek leave for professional development; recognition of staff performance; and the generation of funds. One head commented that increasing the flexibility of the school's currently highly structured and time-intensive teaching programs may be a way of enhancing the opportunities for staff and students to participate in research-oriented activities.

Future desirable level of research

The question as to whether they thought there should be more research within their schools/departments elicited a variety of responses from the heads.

One university head who considered that there should be more research within his

school or department mentioned areas of strength and weakness in its research performance. He noted that higher degree students contributed a large amount of research effort.

The other university head mentioned a need for ongoing staff development in research skills.

Two college heads explicitly said they thought there should be more research in their school. They and the other heads from colleges mentioned a number of factors that would assist this or would be needed if this was to occur. These included: persuading staff that research is a primary responsibility, reducing the content and level of student contact in pre-service courses, and allocating specific research funds expressed as a proportion of budgets.

Summary of heads' responses

It appears from these comments by heads of schools/departments of teacher education that policy and practice regarding research vary among institutions, both within and across the 'binary divide'.

Both the universities and one of the two colleges which replied have institution-wide research committees with a role in the distribution of funds for research.

University staff are formally expected to undertake research and may apply for research funding provided by the government and distributed by central bodies within the institution. At colleges of advanced education, institution-wide policies on research are less well developed.

A major difference is apparent between universities and colleges of advanced education in the type and extent of funding available for research. For example, while both university heads responding to the list of questions indicated that resources available to their department or school were 'adequate', college of advanced education respondents described resources as 'fairly meagre' or 'very limited'.

All respondents mentioned staff time or teaching loads as an impediment to research. Most thought there should be more research in their school or department.

CHAPTER 6

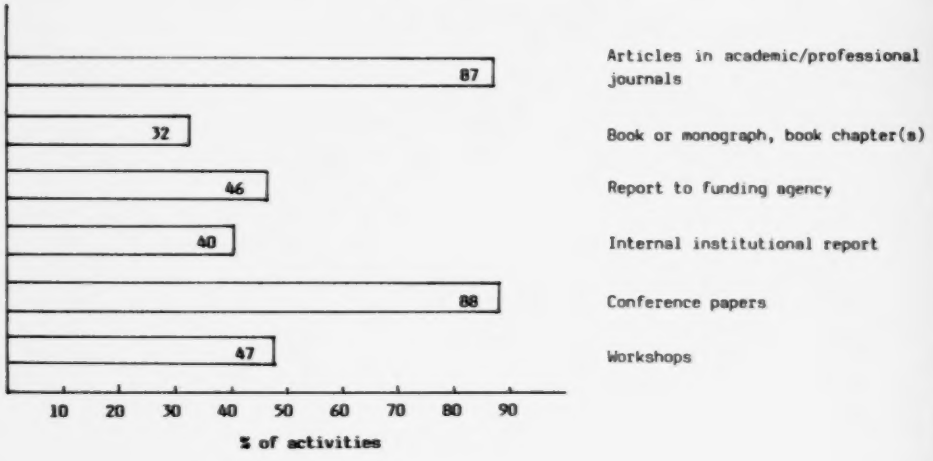
OUTCOMES OF RESEARCH

Respondents were requested to answer this section only if they were the sole or principal researcher for the activities concerned, although some items were also answered by a small number of teacher educators who were not sole or principal researchers for the projects on which they reported.

Modes of Dissemination of Results

The modes of dissemination most frequently used (Table 28) were conference papers and journal articles. Nearly 90 per cent of research projects were reported as having been or likely to be disseminated using either or both of these modes. Both of these were used a little more often for university activities than for college research. Workshops, reports to funding agencies, internal institutional reports, and books or monographs were also used for large proportions (one-third to nearly one-half) of activities. Dissemination in book form was more common for university research. Display 4 below summarises researchers' responses to this item.

Display 4: Modes of dissemination of research projects

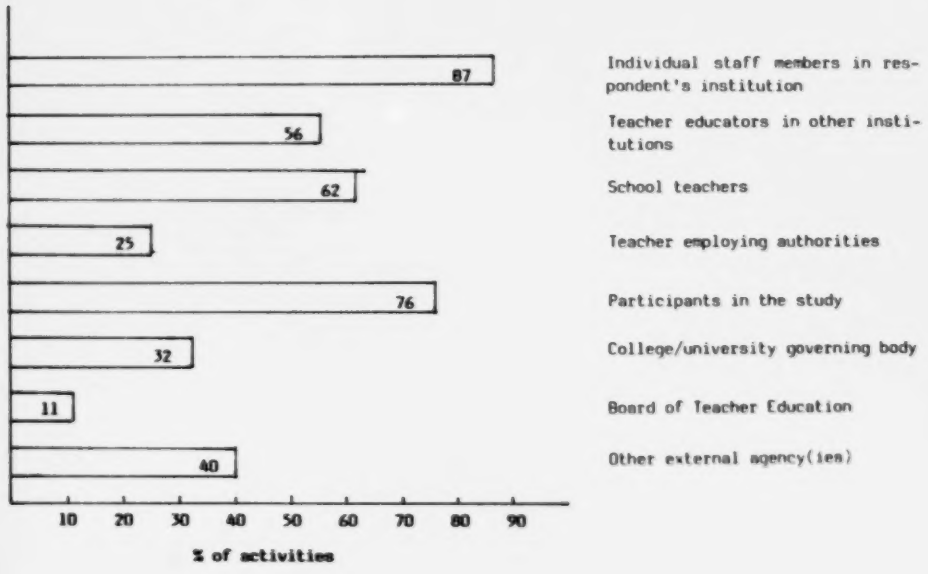


Modes other than those specified were reported to have been used for twenty-five activities. The most common of these modes was seminar presentations, talks or colloquia. Also mentioned were other forms of publication (e.g. summary published by Education Department for schools, newsletter or newspaper articles), unpublished theses, use in lectures or other teaching, radio interviews, Q-Net satellite transmission, informal discussions, report to Parliament and report to National Aboriginal Educational Committee.

Audiences

As Table 29 indicates, the audiences to whom results were most often disseminated were individual staff members of the respondent's institution and participants in the study. Overall, the results of 87 per cent of research projects were disseminated to other teacher educators within the researcher's own institution, and those of 56 per cent of projects to teacher educators in other institutions. For about three-quarters of projects the findings were distributed to participants in the study. It is of significance to note that in only about one-third of cases were results disseminated to the governing body of the institution. The results of 62 per cent of research projects were disseminated to teachers and of 25 per cent of projects to teacher employing authorities. The least common audience group among those listed was the Board of Teacher Education, to which were disseminated the results of 11 per cent of research projects. These responses are depicted in Display 5.

Display 5: Groups to whom results disseminated



The findings of forty-three studies were reported to have been disseminated to audiences other than those listed. These other audiences included other academics, conference participants, certain groups within the Department of Education (e.g. guidance officers, school inspectors), journal readers, student teachers, teacher centre libraries, a P. & C. association, the Board of Secondary School Studies, and the general public.

Breadth of Dissemination

Results for 171 projects (representing 72 per cent of the projects for which respondents had been sole or principal researchers) had been disseminated locally. Some

42 per cent of projects had received statewide distribution, 70 per cent national and 51 per cent international distribution. University projects were much more likely to have been disseminated internationally than were college projects (see Table 30).

Outcomes

A number of possible outcomes of research were specified on the questionnaire. Principal or sole researchers were asked to indicate, for each research activity, whether each specified outcome had been satisfactorily achieved, was in progress or likely to be achieved, or was not achieved at all. Results are indicated in Table 31.

The two most significant outcomes (i.e. those with the highest proportion of responses in the 'satisfactorily achieved' and 'in progress' categories) were **improvement to one's own teaching** and **addition to the research literature.** In both cases, about half the responses were in the 'satisfactorily achieved' category. About half of the research projects were reported to be likely to contribute to **development of programs within the institution, improve schooling practice** and **contribute to teacher education generally.** A further one-fifth to one-quarter of research projects had satisfactorily achieved these outcomes.

The least common outcome was **contribution to policy within the institution.** Indeed, about 60 per cent of the research activities were reported as making no contribution to policy within the institution.

Outcomes other than those specified were indicated by a small number of people (16 people, 24 activities). These included contributions to national or state education policy, to research methods, and to teacher education practices in overseas institutions. Also mentioned were contributions to leadership practice, to teaching of Aboriginal children, to sociological studies, to family welfare and to mines rescue practice and training (one person each).

CHAPTER 7

FUTURE DIRECTIONS

Future Research Themes

Respondents were asked to list the three topics within the teacher education area which they thought deserved the highest priority for research over the next few years. A little over 10 per cent of questionnaire respondents did not answer this question. Others gave fewer than three topics. In total, 921 topics were listed (see Table 14, right-hand column). Of these, many were not clearly within teacher education, being concerned rather with other levels of education or higher education more generally, or with other discipline areas within education (particularly educational psychology and child development, curriculum and sociology of education). Of the school curriculum areas mentioned, the most frequent were information technology, literacy/English, numeracy/mathematics, and the arts.

About 47 per cent of the topics were directly in the teacher education area. These topics have been grouped into thirteen themes. A full listing of the teacher education topics is presented in Table 32. The total number of research projects suggested under each of the themes is:

- teacher education (general) - 57
- pre-service teacher education - 44
- school/field experience - 87
- models of initial teacher education - 9
- content/curriculum of teacher education - 28
- selection/entry/recruitment to teacher education - 37
- theory/practice dichotomy or link - 12
- student teacher characteristics - 27
- in-service teacher education - 29
- induction, beginning teachers - 21
- teacher development in general - 50
- teacher educators - 8
- other topics - 11.

It can be seen that school experience, with about a fifth of the total number of topics, was the most popular of the above themes. Other high priority areas were: teacher development in general, pre-service teacher education in general, selection to teacher education courses, content of pre-service courses, student teacher characteristics, in-service teacher education, and teacher induction.

Within the theme of school experience, the topic most commonly thought to need investigating was the importance, role or value of the experience for student teachers. This was suggested as a topic by twenty people. Sixteen respondents considered the quality of supervision of school experience to be a high priority for research.

Evaluation of, or research into the effects or effectiveness of, teacher education programs as a whole was suggested by twelve people in relation to pre-service programs specifically, by fourteen respondents in relation to teacher education in general, and by seven respondents in relation to in-service programs. Methods of teaching and learning in teacher education in general were felt to need research by eleven respondents.

Nine teacher educators suggested studies (e.g. longitudinal) of teacher development across pre-service and in-service education. Twenty-four respondents proposed studies of teacher development in various respects (e.g. development of teaching style,

development of a critical attitude to teaching, personal development) without tying this to a particular level of teacher education (pre-service, induction, in-service).

Within the area of selection, the two most frequently advocated themes were procedures or methods for selecting teacher education candidates (ten respondents) and the criteria for selection (ten respondents).

The studies suggested in relation to models of initial teacher education were largely concerned with the effectiveness of various models for the structure and length of initial programs, e.g. a four-year versus three-year pre-service program.

Within the area of student teachers, studies suggested included research into attitudes and values of student teachers and the skills of student teachers in literacy and numeracy.

Those research projects within the theme of the teacher education curriculum included a range of curriculum areas, for example, the arts, liberal education, Asian studies, peace studies, the theory of education. The topics suggested for research on in-service teacher education were also disparate.

Of the eight topics listed under 'teacher educators', four were concerned with the professional development of teacher educators.

A comparison of the left- and right-hand columns of Table 14 indicates a number of disparities between the amounts of current and suggested future research effort directed to particular areas. A direct comparison is difficult because for future research topics, respondents were specifically asked to list areas within teacher education rather than within education generally or within their fields of interest. Nonetheless, it is significant to note that within teacher education no research projects were reported to be being undertaken on models for initial teacher education, teacher educators and the link between theory and practice. Eight to twelve projects were suggested under each of these themes. Questionnaire responses indicate that these are under-researched areas.

Future Structures for Undertaking Research

Respondents were asked to indicate their agreement or disagreement with a number of statements about their research involvement. Table 33 shows the extent of agreement overall, while Table 34 shows this separately for universities and colleges. The great majority of respondents (more than 75 per cent) agreed or strongly agreed with the following statements:

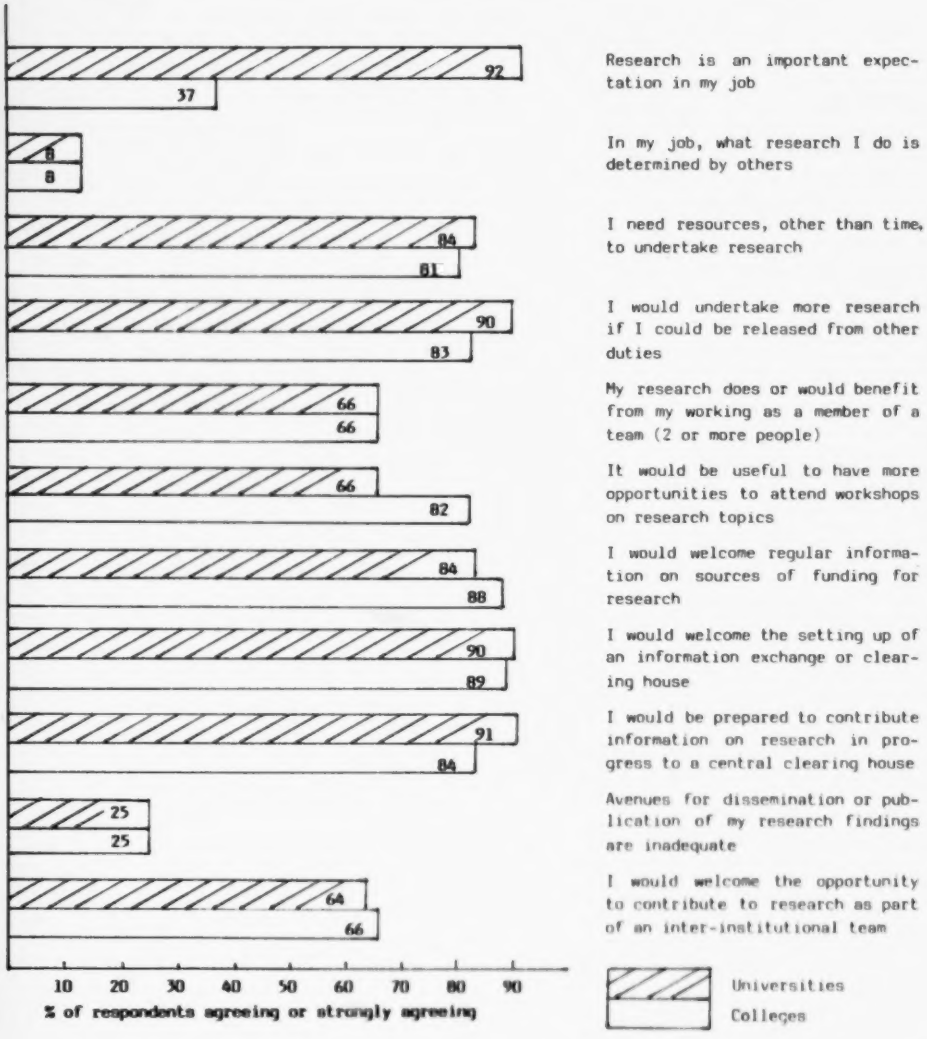
- I would welcome the setting up of an information exchange or clearing house for research in progress in other institutions in Queensland.
- I would undertake more research if I could be released from other duties.
- I would welcome regular information on sources of funding for research.
- I would be prepared to contribute information on research in progress to a central clearing house.
- I need resources, other than time, to undertake research.
- It would be useful to have more opportunities to attend workshops on research topics.

Most respondents disagreed or strongly disagreed that the research they did was determined by others.

There were some differences between university and college of advanced education

respondents on these items. Teacher educators in colleges were much more likely than those in universities to disagree that research was an important expectation in their job. College of advanced education respondents were more likely to agree that it would be useful to have more opportunities to attend workshops on research. University respondents were more likely to disagree that avenues for dissemination of research findings were inadequate. These findings are shown in Display 6.

Display 6: **Extent of agreement with statements concerning research**


92
37
Research is an important expectation in my job
8
8
In my job, what research I do is determined by others
84
81
I need resources, other than time, to undertake research
90
83
I would undertake more research if I could be released from other duties
66
66
My research does or would benefit from my working as a member of a team (2 or more people)
66
82
It would be useful to have more opportunities to attend workshops on research topics
84
88
I would welcome regular information on sources of funding for research
90
89
I would welcome the setting up of an information exchange or clearing house
91
84
I would be prepared to contribute information on research in progress to a central clearing house
25
25
Avenues for dissemination or publication of my research findings are inadequate
64
66
I would welcome the opportunity to contribute to research as part of an inter-institutional team
10 20 30 40 50 60 70 80 90
% of respondents agreeing or strongly agreeing
Universities
Colleges

Other Comments

Ninety-three respondents (31 per cent of them from universities) made use of the spaces provided at the end of Part A and at the end of the questionnaire for respondents to make any further comments they wished on any aspect of research by teacher educators. The comments were widely varying in nature but fell into several categories. The two largest categories were comments indicating factors needed if more, or better, research is to be done (principally more resources and more time allowance), and comments indicating the type and areas of research needed (e.g. involving school teachers, action research, within a critical paradigm, the purposes of schooling). A small number of comments was made on the role of colleges of advanced education in research, and on reasons why teacher educators should or should not undertake (more) research.

CHAPTER 8

SUMMARY AND DISCUSSION

Background of Respondents

Information from the questionnaire on the backgrounds of respondents indicates that Queensland teacher educators, both in colleges of advanced education and in universities, have a considerable amount of academic and research experience.

Compared to the teacher educators in the study by Beswick et al. (1980), the teacher educators in the present survey were slightly more likely to hold appointments among the senior staff (lecturer level and above) and less likely to be in an appointment below lecturer level.

Respondents were academically well-qualified, with large proportions holding higher degrees: about 70 per cent with at least a masters degree and a third with doctoral degrees. These figures represent a considerable increase (almost a doubling) in the proportions of teacher educators with postgraduate qualifications over those found in the study by Beswick et al. (1980). This indicates a continuation of the increase in level of qualifications since the early 1970s noted by Beswick et al.

A majority of respondents had had some research experience, usually in collaboration with other researchers, before taking up their present position.

The facts that half of the respondents to the present survey had been in their current position for more than six years, and half had been in their present institutions for more than ten years, indicate that respondents had considerable experience as teacher educators.

A minority, though a large minority, of respondents reported belonging to educational research associations. The fact that university respondents were much more likely than college of advanced education respondents to belong, suggests that membership is less open to, or is seen as having less to offer, those who are less involved in research. Yet it was significant that about one-third of college staff were members of an educational research association.

Research Undertaken

The questionnaire results show that a considerable amount of research is being undertaken by teacher educators. Overall, 54 per cent of respondents indicated they had been involved in research during 1986-87. But, as might be expected, college staff are much less likely to be involved in research than are university staff.

Combining the number of college respondents not doing research at all and those who reported doing research but spending less than 10 per cent of their professional working time on this, it is found that only 17 per cent of college respondents were engaged in research for more than 10 per cent of their time. This compares with 77 per cent of university respondents who were so engaged. Averaged over all respondents (not just researchers), college of advanced education staff spent just over 5 per cent of their time on research, while university respondents spent 28 per cent. Given the different basis of the information (different questions and different samples), a direct comparison with the results of the Australia-wide study by Beswick et al. (1980) is not possible. However, it is of interest to note that their average figures for proportion of time spent by teacher educators on research were 7 per cent and 21 per cent respectively for college staff and university staff. Again, while a direct comparison is

not valid, it is interesting to note that in the present survey, the overall average time spent on research by all respondents was 10 per cent, which is the same as that found for education faculty in the American study reported by Schwebel (1982).

This suggests that the considerable research capability of college of advanced education teacher educators, as indicated in the previous section, is being under-utilised.

The importance to teacher educators of undertaking research was recognised by respondents. The great majority wanted to spend more time than they currently did on research and a major reason for wanting to do so was a perceived interaction between research and teaching. Respondents' comments echoed arguments found in the literature about the complementarity of the two activities.

Of the research undertaken by teacher educators responding to the questionnaire, most was on areas of education other than teacher education. Popular areas were educational psychology, child development and various areas of the school curriculum. Research in such areas may well have implications for teacher education programs.

A variety of research designs was used, but case studies and surveys were the most common. Most research was undertaken by staff members working on their own, on topics chosen for reasons of personal interest.

Differences were apparent between college of advanced education and university researchers in the areas being researched, in the proportion of projects being undertaken by sole researchers, and in the reasons for undertaking particular research topics.

There was a notable difference too, in the extent to which respondents from the two sectors of higher education had supervised student research since 1986: nearly three-quarters of university staff had done this, but less than a third of college of advanced education staff had. The projects supervised by university staff were more likely than those supervised by college of advanced education staff to be at postgraduate level. This result reflects the much greater availability of postgraduate programs at universities.

Funding and Other Support

It is in the support (financial and otherwise) for research that differences between the two sectors are most apparent. This was evident in the responses to both the teacher educators questionnaire and the school/department heads questionnaire.

University teacher educators were more likely to have applied for research funding than were their college of advanced education counterparts. This may simply be due to the fact that university staff are more likely to be involved in research. It may also reflect a difference in perceptions of the likelihood of success in obtaining funding, although any such perception would appear unjustified on the grounds that, of those who applied, the proportions receiving funding were similar in universities and colleges.

College researchers were more likely to rely on personal resources as a source of research funding, while university research was funded to a much greater extent than was college research by institutional funds. Heads of schools/departments in universities noted the existence of institutional special research projects grants and said that resources for research were generally adequate. College heads, by contrast, reported that research funds available to their school were very limited. This reflects the fact that only universities are funded for research in their recurrent grants.

There are a variety of ways other than direct funding in which research can be sup-

ported or promoted within an institution. The present survey shows that all these means are used less, in some cases much less, by colleges than by universities. As responses from school/department heads indicated, colleges were less likely to have institution-wide research committees or to have well-developed institutional policies on research. To a large extent, this probably reflects the historical role of colleges of advanced education as institutions intended mainly for teaching with little or no role in research.

The results of this study concerning promotion of research in colleges differed somewhat from those of the study reported by Jones and Ainley (1987). While both studies found 'provision of information about research in the annual report' to be one of the major means of research promotion, in the present study, 'the use of research as a criterion in promotion' rated more prominently than in the Jones and Ainley study. The figure of 31 per cent of respondents in the present study who indicated the latter means was used 'to a great extent' is comparable to the 'less than one-third' of teacher educators in the American study a decade earlier (Yarger et al., 1977) who viewed research as a primary consideration in tenure and promotion decisions.

Outcomes of Research

Responses to the survey indicate that the results of research by Queensland teacher educators are widely disseminated. The results of many projects had been distributed nationally and internationally. Results were most often distributed in the form of conference papers and journal articles although a wide variety of other forms was used.

The most frequently reported outcomes of the research were improvements to the respondents' own teaching (perhaps a part of the interaction between teaching and research that was a reason for wanting to do more research) and addition to the research literature. Research was not reported to have had much impact on the policy of the researchers' institutions.

Future Directions

A wide diversity of topics, not all directly on teacher education, was thought deserving of priority for future research. The school experience component in pre-service courses emerged as a major theme, particularly from the point of view of its value to student teachers.

Other major themes emerging were teacher development in general, pre-service teacher education in general, selection to teacher education courses, in-service teacher education, content of pre-service courses, student teacher characteristics and teacher induction.

The teacher education topics suggested covered most of the priority areas of program research identified by the NITE Committee (those not directly covered included evaluation of work experience programs for teachers, and the contribution of centres of excellence).

Considering the importance placed by Hall and Hord (1981) and Lanier and Little (1985) in the United States, and by Tisher (1987) in Australia, on the need for research on teacher educators, respondents to the present study placed little emphasis on this. Other priority areas for research identified by Tisher, by Lanier and Little, and by Hall and Hord, viz. the influence of various contextual factors, the change process in teacher education, the extent to which programs engender a liberal (versus technical) orientation to teaching, relationships among the various groups responsible for teacher education and the ideologies of participants in teacher education, received very little attention from the Queensland respondents.

A great majority of respondents indicated interest in the idea of a research clearing house, an idea which was enthusiastically taken up by participants in the Research Symposium reported on in the next part of this monograph. This support reflects a recognition of the importance of research in teacher education and a desire to encourage such research in the future. Such a clearing house may also help fulfil the needs seen by Hall and Hord (1981) and Tisher (1987) for those involved in teacher education to identify themselves more closely with this field, to make greater use of the existing knowledge base, to replicate previous studies, and to undertake more collaborative research.

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PART B: SYMPOSIUM HELD AT KELVIN GROVE CAMPUS OF BRISBANE COLLEGE OF ADVANCED EDUCATION ON 20 NOVEMBER 1987

INTRODUCTION

Purpose

The aims of the symposium were to consider the facilitating and constraining influences on research in teacher education, to identify research themes in teacher education which have a high priority over the next few years, and to provide a forum where preliminary discussions could be held among those interested in particular research themes. In the event, these latter two aims were not fully achieved. Instead, the symposium suggested mechanisms whereby priorities in teacher education research could be established and plans for the implementation of the research could be formulated. After introductory remarks, discussions were undertaken in small groups and reported in plenary sessions. As background reading to stimulate discussion, participants were provided with a summary of the results of the research reported in Part A of this monograph.

Participants

The symposium was attended by thirty-seven people. Most participants were representatives of the schools and departments of education at Queensland higher education institutions. Also represented were the state government department of education, the two major teacher unions, and the Board of Teacher Education. The names and institutional affiliations of participants are shown in Appendix III.

CONTEXT OF TEACHER EDUCATION RESEARCH

Factors Inhibiting Research

Participants recognised the following as factors inhibiting the conduct of research in teacher education institutions:

- **Lack of time**
  - no designated research time in workload; this is more of a problem in education than in other disciplines
  - time is needed to apply for funding as well as to carry out research
  - much time is taken up by heavy administrative loads and (as the student to staff ratio increases) by the increasing pastoral role of staff
  - heavy teaching loads leave little free time for research
  - community interaction and consultative roles reduce the time available for research
  - the demands of their other roles mean that staff members have little energy left for research ('burnout')

- **Lack of funds**
  - 'seeding money' for research projects is very small
  - teacher education does not attract funding from industry
- **Lack of support structures**
  - some institutions/campuses lack a research committee
  - there is often little or no access to support staff (e.g. research assistants)
- **Unfavourable climate in schools/departments of education**
  - little or no encouragement for teacher educators to undertake research
  - the college notion that research is not an important aspect of the job
  - status of research is low in colleges of advanced education in general, and particularly in Schools of Education
  - perceived value of educational research is low
  - research on teacher education has lower status than 'discipline' research
  - lack of tradition of research in education
  - too few independent student research projects in college education degree programs
  - lack of a higher degree structure in colleges of advanced education
  - colleges are largely seen as places for vocational preparation
  - small institutions have fewer staff members with common interests to generate research
  - lack of group approaches to research - mostly individual projects
- **Attitude of teacher educators towards research**
  - staff lack intrinsic motivation to undertake research and are not convinced of the value of research
  - staff are deterred by the perceived inherent difficulty of research
  - research tends to be seen as necessarily separate from the teacher educator's main roles, so that staff perceive themselves as 'too busy' to do research
  - there is a failure to make use, for research purposes, of the access teacher educators have to student teachers and school supervising teachers
- **Attitude of teachers**
  - teaching profession has a low regard for educational research and its findings
- **Research climate in Australia**
  - educational research in Australia lacks structural purpose and direction and is very fragmented

Factors Facilitating Research at Present

The following facilitating factors were acknowledged to exist:

- **Funding**
  - grants from Board of Teacher Education and other external bodies

- institutional funds
- funds provided by or through professional associations
- funding for action research available through Participation and Equity Program (PEP)

. **Time**

- lighter teaching loads in universities as compared to colleges
- release time to undertake research (e.g. in TAFE, beginning teachers are given fifteen days' release to undertake a curriculum research project, supported by TAFE's professional development budget)

. **Institutional structures and processes**

- structures such as research centres and research committees which exist on some campuses
- use of research as a criterion in promotion

. **Staff/institutional attitudes**

- view that research is part of the role of academic staff

. **Quality of staff**

- high quality staff attract funds and opportunities

<u>Overcoming Barriers to Research in Teacher Education</u>

A number of ways in which research could be facilitated or barriers to the conduct of research could be overcome were suggested by participants. These included:

. **Funding**

- mounting a drive to interest commerce and industry in funding research on education and teacher education (although this could limit research directions)
- reallocating existing funds (e.g. more economical models of school experience supervision)
- giving education a higher public profile so that it attracts funding
- increasing the entrepreneurial role of educators in seeking outside funds - e.g. demonstrating that educational research can produce saleable commodities (e.g. videos, in-service packages)
- selling research expertise in order to buy time for research

. **Time**

- reorganisation within institutions to allow more research time
- replacement of existing course accreditation process with a model using teacher education action research projects to guide review and development of courses

. **Inter-institutional structures and processes**

- closer collaboration between institutions
- more contact among teacher educators
- clearing house for research information

- **Attitudes towards research**
  - use of notions of teacher and student teacher as researcher, action research; recognition that some types of research can be done while teaching and do not require much money
  - more corporate approach needed to research - e.g. institutional teams
  - teacher educators to undertake action research in order to encourage participation of teachers in similar activities

In summary, five suggestions for encouraging research were put forward:

- adoption by teacher educators of an entrepreneurial approach towards obtaining funding
- reconceptualisation of teaching and learning in teacher education to include the notion of the teacher/learner as researcher
- raising the status of research activities undertaken with little or no funding and possibly never formally reported
- use of action research as an input to the course review and development process
- holding of research colloquia to raise the profile of research in an institution.

FUTURE DIRECTIONS IN TEACHER EDUCATION RESEARCH IN QUEENSLAND

Areas for Research

There was some discussion of the teacher education research themes which should have a high priority in Queensland over the ensuing years. Topics identified were:

- **Models of teacher education**
  - Research on the various phases of the 3+x+1 model of teacher education
  - The efficacy of alternative models for the length and structure of initial teacher education
- **Quality of teacher education programs**
  - Quality, effectiveness and efficiency of teacher education programs
  - Continuing evaluation of programs for improvement
  - How best to respond to possible reduction in the resource base for teacher education - critical, ideological studies
  - The development of programs of teacher education
- **Field experience**
  - Type and sequences of in-school and other field experiences
  - Models of supervision, particularly in relation to educational and cost effectiveness
  - Effects of school experience
  - Models of internship
- **Pre-service teacher education**
  - The most appropriate methods for teaching student teachers

- The types of experiences student teachers have in teacher education programs
- The relationship between teaching and learning
- How teachers learn to teach
- The preparation of teachers for change
- The preparation of teachers for various age ranges

. **Selection into teacher education programs**

- Identification of the qualities amenable to development in the teacher education program and those not so amenable
- Identification of various models of effective teachers
- The predictive validity into the first few years' teaching of various entry criteria
- Cost-effectiveness of procedures for obtaining multiple measures of entry criteria

. **Roles of teacher educators**

- Defining the work of the teacher educator
- The extent to which teacher educators are and should be involved in research in schools

. **In-service teacher education**

- The impact of professional associations
- The compilation of a data base on in-service courses and teacher participation in in-service courses

. **Research into teacher education research**

- The dissemination of research findings
- The application of teacher education research
- The methodologies used
- The researchers

. **Research on teaching and schools**

- The status and roles of teachers
- Curriculum development, implementation and evaluation
- Implications of a P-10 curriculum
- Teachers' practical or craft knowledge and teachers' implicit theories of teaching
- Understanding of the teaching process
- The development of reflective practitioners

Valuing Research in Teacher Education

As one seminar participant commented, the list of topics for teacher education research could be 'endless'. While the topics listed above, and those generated from the survey of teacher educators, provide useful starting points for considering future teacher education research in Queensland, it is clear that some mechanism is needed

to enable the future research areas to be put into priority order. Before considering how such a mechanism might be implemented, other issues raised at the seminar in relation to teacher education research are briefly listed. Many of the comments could be regarded as being related to raising the status of research in teacher education.

It was suggested that teacher educators should develop structures for interacting with industry. If business and industry could be convinced of the value of teacher education research, they might be prepared to fund certain research projects. They might also lobby the government, on behalf of the teacher educators, to provide more funds for teacher education research.

The value of research to governments would be enhanced if the teacher education research community was able to anticipate the research needs of governments. Governments cannot usually wait for the two or three years which it often takes for a research project to be completed before they make a decision.

College councils needed to be persuaded of the value of research in teacher education. As council members included members of business and industry, these representatives could play a useful role in informing other members of the business community of the valuable role which teacher education research can play. It was suggested that, in order to convince councils of the importance of research in teacher education, it was first necessary for teacher educators to clearly identify (a) what was known about teacher education and what was not known, and (b) of what was known, which aspects were currently not implemented due to constraints.

Teachers and student teachers also needed to recognise the value of research. The valuing by teachers and student teachers of research would be enhanced if student teachers in pre-service programs and teachers enrolled in in-service courses were expected to undertake small action research projects as part of their programs. In addition, it was suggested that teachers should have some input into the aspects of teacher education which were researched.

Structures for Teacher Education Research in Queensland

It was suggested that research committees should be established within all schools and departments of teacher education in higher education institutions in Queensland. The role of these committees would be to identify priorities for teacher education research within the institution, to foster research in teacher education, and to develop a collaborative approach to research within the particular school or department concerned. These committees could also play a role in presenting the results of research to the council of the institution and in liaising with research committees in other schools or departments. The suggestion was also made that the functioning of such research committees would be facilitated if a research coordinator was appointed within each school of teacher education.

As well as research issues which were relevant to a particular institution, there were those research themes which had more general application to the overall development of teacher education in Queensland. It was therefore suggested that a Queensland teacher education research group, comprising a representative of each of the schools or departments of teacher education, could be established. The functions of this group could include:

- identifying research themes which have a high priority for teacher education research in Queensland
- developing plans for the conduct of this research
- promoting collaboration in the execution of research studies

- establishing a data base of teacher education research being undertaken in Queensland
- facilitating communication among teacher educators undertaking research in the same area
- disseminating the results of research, including research done within a particular institution which might have wider interest or application
- monitoring state, national and international publications for research in teacher education and disseminating findings of relevant research
- commissioning the writing of papers on identified areas in teacher education
- providing support for teachers and others undertaking research studies
- communicating the findings of research to government, business and industry
- developing plans for interacting with business and industry in order to secure funds for teacher education research.

A representative from James Cook University indicated that the School of Education at that institution was willing to accept responsibility for acting as a clearing house for teacher education research in Queensland. A representative from the School of Teacher Education, Mount Gravatt Campus, Brisbane College of Advanced Education, said that that School was willing to assist in the clearing house role. It was recognised that the establishment of a Queensland teacher education research group which would fulfil all of the functions listed above was partially dependent on the availability of funds.

POSTSCRIPT

Following a change of government in Queensland, the Minister for Education announced that the Board of Teacher Education would continue its existing functions during 1988. At its meeting in December 1987, the Board resolved to write to each head of school of teacher education in Queensland colleges and universities, inviting them to nominate a research coordinator to participate in a meeting of the Board's Research Committee in order to discuss priorities for teacher education research in Queensland, and to be involved in discussions aimed at fostering a collaborative approach to teacher education research. The first meeting of that group was held in February 1988. It was felt that there would be benefits for teacher education in Queensland if mechanisms were maintained to ensure the continuation of such a collaborative group.

APPENDIX I

QUESTIONNAIRES USED IN THE SURVEY

BOARD OF TEACHER EDUCATION

RESEARCH BY TEACHER EDUCATORS

QUESTIONNAIRE TO MEMBERS OF ACADEMIC STAFF IN SCHOOLS/DEPARTMENTS OF EDUCATION

Definition

For the purposes of this survey, "research" is defined as systematic enquiry, not necessarily of an empirical nature. It is not confined to activities undertaken as identifiable projects or coherent programs, or to activities the results of which are formally reported. "Private" research (i.e. that undertaken in a staff member's own time, e.g. for a higher degree thesis) is included. Research undertaken collaboratively is also included. However, activities sometimes included in broad definitions of research and development - e.g. consultancy, curriculum development (for teacher education), invited lectures, conference papers, editing and review, production of materials and equipment, media projects, performances and exhibitions - are **not to be included** in the present survey.

Scope

In answering the following questions, please refer only to research you have been involved in -

(a) **as a member of a teacher education department/school/institution;** and

(b) **since the beginning of 1986.**

We are interested in all research undertaken within these qualifications, not just research on teacher education. (The one exception to this is Section VI on Future Research, which is confined to teacher education.)

Directions for completing questionnaire

The questionnaire is in two parts. Please answer Part A whether or not you have undertaken research since the beginning of 1986. If you have undertaken research within the definition and scope of this survey, please also answer Part B.

Most questions can be answered by circling a number corresponding to an appropriate alternative. In several instances you are asked to write a few words in the spaces provided. At the end of the questionnaire you are invited to make comments which may be helpful in explaining your responses or may provide additional information which you feel can contribute to the study.

Please return by 31 August 1987.

Part A - to be completed by all questionnaire recipients.

Card 1
01-04

I. Your position and institution

1. While you need not provide your name, could you please indicate below your position and the name of the educational institution by which you are employed.

Position:

Colleges		Universities	
Head of Department	1	Professor	6
Principal Lecturer	2	Associate Professor/Reader	7
Senior Lecturer	3	Senior Lecturer	8
Lecturer	4	Lecturer	9
Senior Tutor/Tutor	5	Senior Tutor/Tutor	10

05-06

Institution:

Brisbane College of Advanced Education	
Carseldine	1
Kelvin Grove	2
Mount Gravatt	3
Capricornia Institute of Advanced Education	4
Darling Downs Institute of Advanced Education	5
James Cook University of North Queensland	6
McAuley College	7
University of Queensland	
Department of Education	8
Department of Human Movement Studies	9

07

2. (a) For how long have you been employed at your current institution (for Brisbane College of Advanced Education and James Cook University, count the former colleges as part of current institution)?

_____ years

08-09

(b) For how long have you been employed in your current position?

_____ years

10-11

II. Your background in research

1. Please list your academic qualifications and indicate whether each degree has been obtained by coursework, research or a combination of these:

Degree	Coursework	Research	Combination	
_____	1	2	3	12-14
_____	1	2	3	15-17
_____	1	2	3	18-20
_____	1	2	3	21-23
_____	1	2	3	24-26

2. Please provide the following information concerning the research experience (apart from research for academic awards) you had before taking up your present position:

(a) In which broad areas had you undertaken research?

_____ 27-34

_____

_____

_____

(b) At what level(s) were you involved in this research (e.g. as research assistant, team member, joint researcher, project director)?

_____ 35-38

_____

_____

_____

(c) For how many years had you been involved in research?

_____ years 39-40

3. Since the beginning of 1986, have you applied for any research funding?

Yes	1		41
No	2	If NO, go to Question 4 below.	

If YES, have any of your applications been rejected?

Yes	1		42
No	2	If NO, go to Question 4 below.	

If YES, did you still undertake the proposed research activity?

Yes	1	43
No	2	

If NO, please briefly indicate the nature of the proposed activity:

_____ 44-47

_____

_____

_____

4. Please indicate the educational research associations, if any, of which you are a member (circle all that apply):

None	1	48-49
AARE	2	
QIER	3	
HERDSA	4	
SPATE	5	
Other (please specify)	6	

_____

_____

III. Supervision of student research

1. (a) Have you supervised any undergraduate or postgraduate research projects since the beginning of 1986?

Yes	1	50
No	2	

If NO, go to Section IV on page 5.

(b) If YES, please indicate briefly for each such project the research area (e.g. primary/secondary/higher education; curriculum/policy; maths/reading/ESL/Business studies) and the level (i.e. undergraduate or postgraduate):

Research Area(s)	Level (1=undergrad. 2=postgrad.)	
		51-53
		54-56
		57-59
		60-62
		63-65
		66-68
		69-71
		72-74
		75-77
		78-80

IV. Promotion of research

Card 2
01-04

To what extent does your institution promote research through the following means?

Please use the following scale: 1 = not at all or very little, 2 = to some extent, 3 = to a great extent.

Provision of funds and equipment to undertake research	1	2	3	05
Provision of support staff to assist in research	1	2	3	06
Provision of study leave	1	2	3	07
Use of background in research as a criterion for appointment	1	2	3	08
Use of research as a criterion in promotion	1	2	3	09
Association of a research company with the institution	1	2	3	10
Establishment of research consultancies within the institution	1	2	3	11
Provision of postgraduate research programs	1	2	3	12
Publication of an institutional research report	1	2	3	13
Provision of information about research in the annual report	1	2	3	14
Holding of seminars about research methodology	1	2	3	15
Holding of seminars to present research results	1	2	3	16
Allowance for research time in the allocation of teaching loads	1	2	3	17
Other (please specify)	1	2	3	18

_____

_____

_____

V. General questions

Please rate each item on the following scale: 1 = **strongly disagree**, 2 = **disagree**, 3 = **uncertain**, 4 = **agree**, 5 = **strongly agree**.

Research is an important expectation in my job	1	2	3	4	5	19
In my job, what research I do is determined by others	1	2	3	4	5	20
I need resources, other than time, to undertake research	1	2	3	4	5	21
I would undertake more research if I could be released from other duties	1	2	3	4	5	22
My research does or would benefit from my working as a member of a team (2 or more people)	1	2	3	4	5	23
It would be useful to have more opportunities to attend workshops on research topics	1	2	3	4	5	24
I would welcome regular information on sources of funding for research	1	2	3	4	5	25
I would welcome the setting up of an information exchange or clearing house for research in progress in other institutions in Queensland	1	2	3	4	5	26
I would be prepared to contribute information on research in progress to a central clearing house	1	2	3	4	5	27
Avenues for dissemination or publication of my research findings are inadequate	1	2	3	4	5	28
I would welcome the opportunity to contribute to research as part of an inter-institutional team	1	2	3	4	5	29

VI. Future research

Please list the three topics within the teacher education area which you think deserve the highest priority for research over the next few years:

1. _____ 30-

2. _____ 32-

3. _____ 34-

VII. Further comments on Part A

Thank you for completing Part A. If you have undertaken research since the beginning of 1986, please also complete Part B.

PART B - to be completed by those who have undertaken research since the beginning of 1986.

VIII. Time spent on research

1. Approximately what proportion of your professional working time (i.e. the total time you spend on employment responsibilities including research, teaching, administration and community service), averaged over a year, would you estimate you have spent on research since the beginning of 1986?

Less than 10 per cent	1
11-20 per cent	2
21-40 per cent	3
41-60 per cent	4
61-80 per cent	5
More than 80 per cent	6

36

2. Compared to the time you currrently spend, how much time would you like to spend on research?

More time	1
Same as at present	2
Less time	3

37

Please give your reasons for this answer:

38-41

_____

_____

_____

_____

_____

61

IX. Nature of research

1. Please list below the titles of those research projects/activities on which you have worked since the beginning of 1986, the main aims of each project/activity, the research design used, and your level of involvement in each. If you have been involved in more than three projects/activities, please give details for the three on which you have spent the most time since the beginning of 1986.

Activity A Title: _____

Aim(s): _____ 42-43

_____

_____

Research design or methodology (e.g. reflective, critical, historical, methodological (i.e. research into methods of research), experimental or quasi-experimental, survey, case study, ethnographic, action research)

_____ 44-45

_____

_____

Level of involvement (e.g. sole researcher, principal researcher in a collaborative effort, joint researcher in a collaborative effort, member of a project team led by someone else)

_____ 46

_____

Is this project completed? Yes 1 47
No 2

Activity B Title: _____

Aim(s): _____ 48-49

_____

_____

Research design: _____ 50-51

_____

_____

Level of involvement: _____ 52

_____

Is this project completed? Yes 1 53
No 2

Activity C Title: _____

Aim(s): _____ 54-55

_____

_____

Research design: _____ 56-57

_____

_____

Level of involvement: _____ 58

_____

Is this project completed? Yes 1 59

No 2

2. What were the reasons for your undertaking each of these research activities?

Please circle as appropriate for each main activity in which you have been involved (you may circle more than one):

	Activity A	Activity B	Activity C	
Requested by your institution	1	2	3	60-62
Requested by a school	1	2	3	63-65
Commissioned by external agency (e.g. Board of Teacher Education, Board of Advanced Education, CTEC)	1	2	3	66-68
Arose from discussions with colleagues in School/Department/Institution	1	2	3	69-71
Arose from contact with teachers/students in schools	1	2	3	72-74
Arose from personal interest	1	2	3	75-77
Suggested by professional reading	1	2	3	78-80
Arose from teaching interests or other professional practice	1	2	3	81-83
Arose from professional practice needs	1	2	3	84-86
A research focus of Institution, School or Department	1	2	3	87-89
Other (please state)	1	2	3	90-92

_____

_____

_____

_____

IF YOU HAVE NOT BEEN THE SOLE OR A PRINCIPAL RESEARCHER FOR ANY RESEARCH PROJECTS/ACTIVITIES SINCE THE BEGINNING OF 1986, PLEASE GO TO SECTION XII ON PAGE 14.

X. Funding for research

Card 3
01-04

Please answer this section only if you have been the sole researcher or a principal researcher for the activity in question. Please respond separately for each of the main three projects or activities in which you have been the sole or a principal researcher. Please refer only to research undertaken while you have been a member of a teacher education School/Department and since the beginning of 1986.

1. To what extent have you used the following sources of funding in your research?

Please circle the appropriate number for each activity, using the following scale:
1 = nil or very little use, 2 = moderate use, 3 = great or exclusive use.

	Activity X	Activity Y	Activity Z	
Institutional funds	1 2 3	1 2 3	1 2 3	05-07
State government funds	1 2 3	1 2 3	1 2 3	08-10
Commonwealth funds	1 2 3	1 2 3	1 2 3	11-13
Private sector funds	1 2 3	1 2 3	1 2 3	14-16
Personal resources (excluding time)	1 2 3	1 2 3	1 2 3	17-19
Other	1 2 3	1 2 3	1 2 3	20-22

2. Please estimate the total amount of **external** funding you have obtained for each of these research activities:

Activity X: $_____ 23

Activity Y: $_____ 24

Activity Z: $_____ 25

3. (a) Please indicate the extent to which the availability of funds has been necessary to fulfilling each project's aims.

Please use the following scale: **1 = not at all or to small extent, 2 = to some extent, 3 = to a great extent.**

Activity X 1 2 3 26

Activity Y 1 2 3 27

Activity Z 1 2 3 28

(b) Has the scope of any of these projects/activities been restricted by a lack of funds?

Yes 1

No 2 29

If YES, please indicate the extent to which any lack of funds has restricted each project's scope.

Please use the following scale: 1 = not at all or to small extent, 2 = to some extent, 3 = to a great extent.

Activity X	1 2 3	30
Activity Y	1 2 3	31
Activity Z	1 2 3	32

4. Have you undertaken any research without seeking specific funding?

Yes	1	33
No	2	

If so, please briefly indicate the size and nature of the activity.

_____ 34-39

_____

_____

5. Has funding been adequate or inadequate for each of the following aspects of research? For incomplete projects, please indicate what you expect will be the case.

	Activity X		Activity Y		Activity Z		
	Ade-quate	In-ade-quate	Ade-quate	In-ade-quate	Ade-quate	In-ade-quate	
Collection of data (e.g. postage, printing of questionnaires, travel involved in conducting interviews)	1	2	1	2	1	2	40-42
Equipment	1	2	1	2	1	2	43-45
Analysis of results	1	2	1	2	1	2	46-48
Dissemination of results (e.g. printing and postage of report)	1	2	1	2	1	2	49-51
Other	1	2	1	2	1	2	52-54

_____

_____

_____

XI. Outcomes of research

Please answer this section only for research where you have been the sole or principal researcher. A separate answer may be given for each of the three main activities for which you have been the sole or principal researcher. Again, please refer only to research you have undertaken as a teacher educator since the beginning of 1986.

1. (a) How have you disseminated the results of your research?

Please indicate whether each of the following modes has been or is highly likely to be used for the dissemination of the results of each activity.

		Activity X		Activity Y		Activity Z		
		Yes	No	Yes	No	Yes	No	
(i)	Articles in academic/professional journals	1	2	1	2	1	2	55-57
(ii)	Book or monograph, book chapter(s)	1	2	1	2	1	2	58-60
(iii)	Report to funding agency	1	2	1	2	1	2	61-63
(iv)	Internal institutional report	1	2	1	2	1	2	64-66
(v)	Conference papers	1	2	1	2	1	2	67-69
(vi)	Workshops	1	2	1	2	1	2	70-72
(vii)	Other (please name)	1	2	1	2	1	2	73-75
	_____							
	_____							
	_____							

(b) To which of the following groups have the results been disseminated?

Card 4
01-04

		Activity X		Activity Y		Activity Z		
		Yes	No	Yes	No	Yes	No	
(i)	Individual staff members in your institution	1	2	1	2	1	2	05-07
(ii)	Teacher educators in other institutions	1	2	1	2	1	2	08-10
(iii)	School teachers	1	2	1	2	1	2	11-13
(iv)	Teacher employing authorities	1	2	1	2	1	2	14-16
(v)	Participants in the study	1	2	1	2	1	2	17-19
(vi)	College/university governing body	1	2	1	2	1	2	20-22
(vii)	Board of Teacher Education	1	2	1	2	1	2	23-25
(viii)	Other external agency(ies)	1	2	1	2	1	2	26-28
(ix)	Other	1	2	1	2	1	2	29-31

2. For each activity, has dissemination of results been on a local, statewide, national or international level?

You may circle more than one option for each activity.

	Activity X	Activity Y	Activity Z	
Local	1	2	3	32-34
Statewide	1	2	3	35-37
National	1	2	3	38-40
International	1	2	3	41-43

3. To what extent has the research you have undertaken since the beginning of 1986 had the following outcomes? For incomplete projects, please indicate what you expect to be the case.

Please use the following scale: **1 = not at all; 2 = in progress, likely; 3 = satisfactorily achieved.**

		Activity X	Activity Y	Activity Z	
(i)	Improvement to your own teaching	1 2 3	1 2 3	1 2 3	44-46
(ii)	Development of programs within the institution	1 2 3	1 2 3	1 2 3	47-49
(iii)	Contribution to policy within the institution	1 2 3	1 2 3	1 2 3	50-52
(iv)	Improvement to schooling practices	1 2 3	1 2 3	1 2 3	53-55
(v)	Addition to the research literature	1 2 3	1 2 3	1 2 3	56-58
(vi)	Contribution to teacher education generally	1 2 3	1 2 3	1 2 3	59-61
(vii)	Other (please specify)	1 2 3	1 2 3	1 2 3	62-64
	_____				
	_____				
	_____				

XII. Further comments

Please add any further comments you wish to make on any aspect of research by teacher educators:

Thank you for completing the questionnaire.
Your assistance is greatly appreciated.

Please return the questionnaire, using the reply-paid envelope to:

Board of Teacher Education,
P.O. Box 389,
TOOWONG. Q. 4066.

BOARD OF TEACHER EDUCATION

QUESTIONS TO HEADS OF SCHOOLS/DEPARTMENTS OF TEACHER EDUCATION

Research at Institutional Level

1. Is there an institutional research committee (or committees)? If so, what is its (their) role, composition and place within the organisational structure of the institution?

2. Is there an organisational research policy? If so, can you briefly describe the policy (or forward a copy of any relevant written formulations).

3. What role does your School play in the formulation of institutional research policy?

Research at School Level

1. Is there a research committee within the School? What is its role, composition and place within the organisational structure?

2. Is there a School research policy? If so, can you describe the policy (or forward a copy of any relevant written formulations).

3. Does the School have particular research themes or ideas which it is currently working on?

4. Comment on what you think the place of research in your School should be.

5. Comment on resources available for undertaking research within the School.

6. Comment on factors (if any) impeding the conduct of (more) research.

7. Comment on your own role in encouraging research within the School.

8. Do you think there should be more research within your School? If so, how could this be achieved?

APPENDIX II

TABLES OF RESULTS

Table 1: Questionnaires sent to, and responses received from, each school or department in survey

School or Department and Institution	No. of questionnaires sent	Percentage of all questionnaires sent	No. of respondents	Percentage of staff in School/Dept responding
Department of Education (inc. Schonell Centre), University of Queensland	44	8	32	72
Department of Human Movement Studies, University of Queensland	10	2	8	80
School of Education, James Cook University	78	14	45	58
University sub-total	132	24	85	64
McAuley College	25	5	20	80
School of Education, Capricornia Institute of Advanced Education	22	4	15	68
School of Education, Darling Downs Institute of Advanced Education	30	5	23	77
School of Early Childhood Studies, Brisbane College of Advanced Education (BCAE)	26	5	20	77
School of Teacher Education, Carseldine Campus, BCAE	66	12	47	71
School of Teacher Education, Mount Gravatt Campus, BCAE	107	19	77	72
School of Teacher Education, Kelvin Grove Campus, BCAE	153	27	104	67
CAE sub-total	429	76	306	71
TOTAL	561	100	391	70

Table 2: Positions of respondents in their institutions

Positions	PERCENTAGE OF RESPONDENTS		
	CAE (N=305)	University (N=85)	Total (N=390)
Professor (university only)	-	6	1.5
Head of department (CAE only)	8	-	6.0
Associate professor/reader/principal lecturer	2	7	3.5
Senior lecturer	22	47	28.0
Lecturer	64	33	57.0
Senior tutor/tutor	3	7	4.0
TOTAL	100	100	100

Table 3: Length of time respondents had occupied current position

Number of years	PERCENTAGE OF RESPONDENTS		
	CAE (N=297)	University (N=82)	Total (N=380)*
1 year or less	17	9	15
2-3 years	16	26	18
4-5 years	11	15	12
6-10 years	22	23	22
11-15 years	25	23	25
16-21 years	9	5	9
TOTAL	100	100	100

* One respondent did not indicate his/her institution.

Table 4: Percentage of respondents employed at each institution

Institution and campus/department		Percentage of respondents (N=390)
University of Queensland		10
• Department of Education (inc. Schonell Centre)	8	
• Department of Human Movement Studies	2	
James Cook University of North Queensland (School of Education)		12
McAuley College		5
Capricornia Institute of Advanced Education (School of Education)		4
Darling Downs Institute of Advanced Education (School of Education		6
Brisbane College of Advanced Education		63
• Carseldine (School of Teacher Education)	12	
• Kelvin Grove (School of Teacher Education + School of Early Childhood Studies)	32	
• Mount Gravatt (School of Teacher Education)	20	

Table 5: Length of time respondents had been employed at current institution

Number of years	PERCENTAGE OF RESPONDENTS		
	CAE (N=302)	University (N=82)	Total (N=385)*
1 year or less	11	5	9
2-3 years	9	16	11
4-5 years	8	6	8
6-10 years	18	18	18
11-15 years	34	35	34
16-20 years	17	17	18
More than 20 years	3	2	3

* One respondent did not indicate his/her institution.

Table 6: Area of respondents' academic qualifications

Area of qualification	PERCENTAGE OF RESPONDENTS		
	CAE (N=299)	University (N=81)	Total (N=380)
Education (inc. Teaching, Education Studies, Educational Administration, Religious Education, Computer Education, Special Education, BHMS (Ed.), etc., also Arts/Science degrees in Education where respondent specified this)	82	88	83
Arts/Humanities (inc. Philosophy, Literature)	50	59	52
Natural Sciences	22	27	23
Technical	5	1	4
Commerce/Economics	7	9	7
Social Science (e.g. Public Administration, Counselling)	13	14	13
Other/Unspecified (mostly Ph.D.)	41	75	48

Table 7: Level of respondents' academic qualifications

Level of qualification	PERCENTAGE OF RESPONDENTS		
	CAE (N=299)	University (N=81)	Total (N=380)
Associate Diploma or Certificate	18	32	20
Diploma	18	14	17
Bachelors degree	83	82	82
Bachelors degree with Honours	26	35	28
Graduate Diploma	30	35	31
Masters degree	72	69	71
Doctorate	26	62	34
Other	1	3	2

Table 8: Mode through which degrees obtained

	PERCENTAGE OF RESPONDENTS		
	CAE (N=305)	University (N=81)	Total (N=391) *
Coursework	87	82	86
Research	26	39	29
Combination	69	72	69

* Five respondents did not indicate their institution.

Table 9: Level at which respondents involved in research before taking up their present position

Level	PERCENTAGE OF RESPONDENTS		
	CAE (N=169)	University (N=66)	Total (N=235)
Undergraduate student	1	3	2
Postgraduate student	5	6	5
Research assistant	17	24	19
Team member or joint researcher	57	67	60
Project director	34	38	35
Sole researcher	25	24	25
Other	6	2	5

Table 10: Educational research associations of which respondents were members

Association	PERCENTAGE OF RESPONDENTS		
	CAE (N=264)	University (N=77)	Total (N=341)
None	62	36	56
AARE	13	33	18
QIER	4	13	6
HERDSA	3	3	3
SPATE	9	8	9
Other	20	26	22

Table 11: Proportion of professional working time spent on research (on average since the beginning of 1986)*

Range	PERCENTAGE OF RESEARCHERS		
	CAE (N=136)	University (N=75)	Total (N=211)
Less than 10 per cent	61	13	44
11-20 per cent	26	20	24
21-40 per cent	11	36	20
41-60 per cent	2	24	10
61-80 per cent	-	5	2
More than 80 per cent	1	1	1
TOTAL	100	100	101

* This table gives responses only of those who had undertaken some research.

Table 12: Amount of time researchers would like to spend on research, compared to time currently spent

	PERCENTAGE OF RESEARCHERS		
	CAE (N=135)	University (N=73)	Total (N=208)
More time	84	81	83
Same time as at present	16	19	17
Less time	1	-	1
TOTAL	100	100	101

Table 13: Reasons for wanting to spend more time or the same amount of time on research

Reasons	PERCENTAGE OF RESPONDENTS		
	CAE (N=116)	University (N=70)	Total (N=186)
For wanting to spend more time or the same amount of time:			
(i) Need for research/knowledge in the area	8	11	9
(ii) Would enable better/more research to be done	11	17	13
(iii) Research and teaching interact; both are important; balance is needed between them	36	24	31
(iv) Personal desire to explore certain areas/ ideas	10	4	8
(v) Importance of research for institutional rewards	2	9	4
(vi) Personal skills lie in research rather than other areas	1	4	2
(vii) Gain personal satisfaction/enjoyment from research	7	11	9
(viii) Importance of research for professional development	13	-	8
For not spending more time now:			
(ix) Other tasks take up all/most available time or leave only fragmented time	34	47	39
(x) Research (of the type carried out by respondent) is not rewarded/supported by institution	7	1	5
(xi) Other (e.g. lack of effective personal time management; time-consuming nature of research)	7	16	10

Table 14: Current and future research areas listed by respondents. Figures include multiple listings (by different respondents) of some current/recent projects

Area	No. of current/ recent research projects listed	No. of future research topics suggested
Particular population or level		
Early childhood/preschool/child care	9	2
Childhood	7	11
Adolescent, youth	5	2
Adult	3	8
Secondary	3	12
Post-compulsory	1	6
TAFE	-	1
Higher education	12	23
Disadvantaged groups	10	12
Special education	19	16
Distance education	4	3
Other population level	13	8
Non-specific population	1	1
Sub-total	87	105
School curriculum or content areas		
Reading/Writing/English/Literacy	18	13
Mathematics	12	12
Natural sciences	7	6
Social studies (History/Geography/Peace Education/ Developmental Education/Economics)	11	4
Arts (Music, Theatre, etc.)	7	12
ESL	-	1
Foreign languages/second languages	1	2
Technology/Information Technology/Computers	7	19
Vocational, pre-vocational	-	2
Career education, counselling	2	1
Life Skill Education	-	1
Religious Studies	3	1
Home Economics	1	2
Health and Physical Education	7	9
Moral Education	1	-
Multicultural Education	-	1
Other Content	7	6
Sub-total	84	92
Discipline areas within education		
Educational Psychology/Child Development	19	34
Philosophy of Education	5	6
History of Education	2	-
Sociology of Education and Politics of Education	10	15
Comparative Education	-	1
Economics and Education	-	2
Educational Administration, Leadership	8	10
Policy Studies, Planning	2	3

Table 14: (contd)

Area	No. of current/ recent research projects listed	No. of future research topics suggested
Discipline areas within education (contd)		
Curriculum	9	27
Measurement and Evaluation (inc. assessment of pupils)	10	12
Other disciplines or audiences	-	2
Sub-total	65	112
Teacher education (see Table 15 for more detail)		
Teacher education (non-specific/general)	1	57
Pre-service teacher education (non-specific/other)	8	44
School/field experience or school-based teacher education	15	87
Models (structure and length) of pre-service teacher education	-	9
Content/curriculum of teacher education courses	2	28
Selection to teacher education courses	3	37
Theory/practice dichotomy or link in teacher education	-	12
Student teacher characteristics/attitudes	13	27
In-service teacher education/professional development		
- General	5	12
- Effectiveness of	5	7
- Particular area of in-service professional growth/ development	2	3
- Run by institutions	-	2
- Recurrent teacher education	-	2
- School-based	1	2
- In touch with reality?	-	1
Induction/beginning teachers	11	21
Teacher development in general (e.g. relationship between pre-service, induction, in-service)	3	50
Teacher educators	-	8
Other topics		
- Role of educational theory in teacher development	-	1
- Study of professional ethics	-	1
- Teacher education - politics and	-	2
- financial considerations	-	2
- Assessment in teacher education	-	1
- College component of pre-service courses	-	2
Sub-total	69	432
Miscellaneous teaching/education areas		
Teaching (non-specific/other)/Education/Learning	12	69
Teachers - thinking of	13	50
Selection to teaching position	-	1
Teaching strategies/classroom management	2	11
Teaching methods	1	16
Education and the law	-	1
Educational environment (architecture, furniture)	-	1
Education and technology	-	11

Table 14: (contd)

Area	No. of current/ recent research projects listed	No. of future research topics suggested
Miscellaneous teaching/education areas (contd)		
Teacher librarianship	-	2
School-community relations	2	4
Sub-total	30	166
Other areas		
Other area not in education but related to it (e.g. psychology, social attitudes, ideology)	22	8
Not in education or even related to it (e.g. Foreign Affairs)	22	6
Sub-total	48	14
TOTAL	383	921

Table 15: Current/recent research projects on teacher education (extracted from responses to Question 1, Section IX of questionnaire to members of academic staff in schools/departments of education)

N.B. Where it was apparent that listings by different staff members referred to the same project, the project is listed only once below.

Title	Aims	Completed?
Teacher education (non-specific/ general) 1 project		
Development education in teacher education	To evaluate the extent of provision in teacher education courses of development education	Yes
Pre-service teacher education 8 projects		
Cooperative and collaborative learning in a postgraduate course for the pre-service education of secondary English teachers		No
An investigation of a campus-based experience for the development of reflective teaching	To determine impact of program on students' development as teachers. To determine the possibility of wider use of campus-based experience in pre-service teacher education	No

Table 15: (contd)

Title	Aims	Completed?
The Kelvin Grove History Evaluation Project	To measure levels of understanding in first-year pre-service students as compared to exit levels after three-year course	No
Comparison of student outcomes in two models of pre-service primary teacher education	Comparison of the effectiveness of one- and three-year training programs	Yes
Utilising a research project as a teaching/learning strategy	To introduce Aboriginal and Islander student teachers to the concept of action research	Yes
Socialisation of PE teachers	To find out the reasons why students enter physical education	
Gender attitude survey	To ascertain student teachers' and lecturers' attitudes towards gender roles	No
Becoming a teacher (preschool)	To explore the process of change as perceived by a group of intending teachers in their one-year pre-service course	No
School/field experience (5 projects)		
RISE (Review of the Influence of School Experience) (listed by two respondents)	To evaluate the influence of the Board of Teacher Education's school experience project on pre-service teacher education programs in Queensland	Yes
Student teacher perceptions of staffrooms	Recognise staffroom as political force and socialising agent	Yes
Evaluation of alternative models of teaching practice supervision (listed by six respondents)	(i) Document supervisor and supervisee perceptions of different models of teaching practice supervision in which they are involved (ii) Evaluate the effectiveness of alternative models of supervision (e.g. peer supervision) with a view to varying supervision in school experience	
The effect of practice teaching on the concerns of pre-service primary teachers	As indicated by title. Also to check on relevance/validity of Fuller's concerns theory	Yes

Table 15: (contd)

Title	Aims	Completed?
A continuation study of the physical and psychological causes of stress affecting student teachers involved in field studies (listed by five respondents)	1. To identify the degree and frequency of causes of stress affecting student teachers involved in field studies 2. Help students cope with distress. Effect revisions to eliminate harmful causes of stress	No
Content of pre-service courses 2 projects		
A determination of the extent to which the principle elements of maths curriculum courses are employed by graduate teachers in their first year of teaching		Yes
Curriculum improvement	To ascertain parent, teacher, lecturer student ideas re textile education and implement these in BCAE Units	Yes
Selection to teacher education courses 3 projects		
Establishing more effective selection criteria for teacher education		No
Selection criteria for student teachers	To make a comparative study of selection criteria for student teachers in Australia, New Zealand and USA	No
Entry characteristics of teacher education students	Correlate success in teaching with entry characteristics such as TE score, type of school attended, meaningful work experience, local/country student, practice teaching grade	No
Student teacher characteristics/ attitudes 13 projects		
Quality of effort of student teachers	To study correlates, predictors of the nature of students' educational experience	No
Sex-role stereotyping in teacher education students	To ascertain attitudes of teacher education students to issues in gender and sex-role stereotyping	No

Table 15: (contd)

Title	Aims	Completed?
Attitudes towards computing in first-year teaching students	To compare changes in attitudes before and after undertaking an introductory course. Look at sex differences	No
Levels of social support in student teachers	To examine changes in patterns of social support over the first six months of a student's college life	No
Incidence of sexual abuse in student teacher population	To compare Australian data with those of other countries	No
Teacher education students and their part-time employment	Nature and extent of part-time employment, coping strategies, attitudes and values arising from experiences of part-time work	Yes
Self-concept of teacher education students	To determine the extent to which course design and changes affect the nature of teacher self-concept	No
Effectiveness of and anxiety associated with computer education subjects for pre-service teachers	To ascertain whether computer education subjects meet the needs of pre-service teachers	No
The aspirations of mature-age students entering the Diploma of Education	To examine such persons' joys and difficulties. To appreciate their preferred learning styles	No
The effects of an introductory course in special education on the attitudes of student teachers towards disabled people	Developing an effective introductory course in special education for student teachers preparing to teach in regular schools	No
Projected retention of intending teachers	Creating a profile of characteristics of teachers who plan to stay in teaching for 5+ years or who plan to resign before that time	No
Trainee teachers' attitudes to exceptional children	To look at attitudinal change of trainee teachers as a result of a subject about mainstreaming exceptional children	No
Primary teacher education students' understanding of human rights	To determine the relationship between primary teacher education students' understanding of human rights and the social relations between them and other groups, e.g. children, parents	No

Table 15: (contd)

Title	Aims	Completed?
In-service teacher education - general 5 projects		
Queensland In-Service Transition Study	To provide an assessment of the contribution of QINSEC and to point out some major lessons from its activities	Yes
In-service education strategies in rural areas	Develop typology to identify needs of in-service in rural areas	No
Evaluation of the Association of Women Educators	Evaluate and document the in-service initiatives and the consultancy provided by the Association of Women Educators	Yes
Justification and analysis of a pilot teleconference for science teachers	To demonstrate professional development at a distance	Yes
Action research in curriculum studies in the B.Ed.	To describe, evaluate and apply recommendations on teachers' action research in their formal curriculum studies	No
In-service: Evaluation of 6 projects		
Teachers teaching teachers	To evaluate a series of in-service seminar/workshops run by teachers for teachers	No
Evaluation of BLIPS Program	To determine the need for and effectiveness of a particular in-service course for a particular school	
Evaluation of Excellence in Teaching Program	To evaluate the effectiveness of 'on-site coaching' approaches as part of the program	No
Education centres in Queensland	To assess the contribution of education centres to the professional development of teachers	Yes
In-service evaluation model	To develop a model on which to predict the potential or worth of proposed in-service education programs	No
SPACES: Teacher Experimental Learning	To evaluate school-based programs	Yes

Table 15: (contd)

Title	Aims	Completed?
In-service: particular area of professional development 2 projects		
Excellence in teaching (Art)	To discover a model of in-servicing a whole staff over a long period in Art	No
QINSEC In-Service Transition Study - Education of Girls	To document the professional development initiatives funded by QINSEC in the area of Education of Girls	Yes
Induction/beginning teachers 4 projects		
Conceptions of teaching: case studies in beginning teaching (listed by eight respondents)	(i) To gauge the perceptions of first-year teachers of the adequacy of their pre-service education in terms of meeting their actual needs as a teacher in the school (ii) To monitor the induction experiences and influences on ways in which beginning teachers conceptualise the work of teaching	No
Survey of TAFE beginning teachers	To improve the quality of teaching and learning and of support services provided to TAFE beginning teachers	No
TAFE beginning teacher needs survey	To provide appropriate workshops for students in such areas as assignment writing, seminar presentation, time management and study skills	No
Idealism encounters reality	To investigate changing perspectives of graduands in their first and second years of practice	No
Teacher development 3 projects		
A study of student involvement in the planning and teaching of their own programs	To compare the attitudes of pre-service and in-service teacher education students towards involvement with their own backgrounds as high school students and with their teaching philosophies respectively	
Needs of child care personnel for pre-service and in-service courses	To provide support for course accreditation	Yes

Table 15: (contd)

Title	Aims	Completed?
Teacher socialisation at Thursday Island High	Monitor changes in beliefs, aims, attitudes and teaching behaviour of teachers new to a culturally different High School	No

Table 16: Research design used in research activities undertaken since the beginning of 1986

Research design	PERCENTAGE OF RESPONSES		
	CAE (N=262)	University (N=204)	Total (N=466)
Reflective/critical	13	18	16
Historical	2	6	4
Methodological	1	2	1
Experimental/quasi-experimental	14	12	13
Survey	30	23	27
Case study/ethnographic	30	29	30
Action research	8	3	6
Other	2	6	4

N.B. N is the number of responses to the question. This exceeds the number of projects reported on because some respondents used more than one descriptor for the research design used for each project and up to two descriptors were recorded for each project.

Table 17: Level of involvement in research activities undertaken since the beginning of 1986

Level	PERCENTAGE OF ACTIVITIES		
	CAE (N=217)	University (N=160)	Total (N=377)
Team member	7	8	7
Joint researcher	23	34	27
Principal researcher or project director	16	23	19
Sole researcher (inc. supervised research undertaken for a higher degree)	55	34	46
Other	-	2	1

Table 18: Reasons for undertaking research activities

Reason		PERCENTAGE OF RESEARCH ACTIVITIES/PROJECTS		
		CAE (N=220 projects)	University (N=163 projects)	Total (N=383 projects)
(i)	Requested by your institution	3	4	4
(ii)	Requested by a school	5	1	3
(iii)	Commissioned by external agency (e.g. Board of Teacher Education, Board of Advanced Education, CTEC)	18	16	27
(iv)	Arose from discussions with colleagues in school/department/institution	31	33	32
(v)	Arose from contact with teachers/students in schools	27	19	24
(vi)	Arose from personal interest	74	68	71
(vii)	Suggested by professional reading	36	44	39
(viii)	Arose from teaching interests or other professional practice	45	44	45
(ix)	Arose from professional practice needs	38	32	35
(x)	A research focus of institution, school or department	8	10	9
(xi)	Other (please state)	5	3	4

Table 19: Applications for research funding since beginning of 1986

A: Percentage of respondents who had applied for research funding		
CAE	(N=293)	15
University	(N=83)	75
All respondents	(N=377)	28
B: Percentage of above respondents who had had any of their applications rejected		
CAE	(N=43)	37
University	(N=28)	44
All respondents	(N=104)	41
C: Percentage of above respondents who still undertook the proposed activity		
CAE	(N=18)	44
University	(N=28)	64
All respondents	(N=46)	57

Table 20: Level of student research projects supervised by respondents since the beginning of 1986

	Undergraduate	Postgraduate
	%	%
CAE (N=166)	46	54
University (N=199)	15	85
All respondents (N=365)	29	71

Table 21: Extent to which various means of promotion of research are used by institutions (all respondents)

Means of promotion of research	PERCENTAGE OF RESPONDENTS		
	Not at all or very little	To some extent	To a great extent
(i) Provision of funds and equipment to undertake research (N=365)	45	46	10
(ii) Provision of support staff to assist in research (N=364)	69	25	6
(iii) Provision of study leave (N=364)	21	58	21
(iv) Use of background in research as a criterion for appointment (N=350)	19	57	24
(v) Use of research as a criterion in promotion (N=359)	16	52	31
(vi) Association of a research company with the institution (N=342)	81	15	5
(vii) Establishment of research consultancies within the institution (N=348)	46	48	6
(viii) Provision of postgraduate research programs (N=351)	59	26	15
(ix) Publication of an institutional research report (N=349)	38	48	14
(x) Provision of information about research in the annual report (N=354)	19	58	23
(xi) Holding of seminars about research methodology (N=362)	62	30	8
(xii) Holding of seminars to present research results (N=362)	49	38	14
(xiii) Allowance for research time in the allocation of teaching loads (N=362)	71	21	8

Table 22: Extent to which various means of promotion of research are used (college of advanced education and university respondents) (CAE: N=266-281; University: N=75-83)

	Means of promotion of research	PERCENTAGE OF RESPONDENTS					
		NOT AT ALL OR VERY LITTLE		SOME EXTENT		GREAT EXTENT	
		CAE %	Uni %	CAE %	Uni %	CAE %	Uni %
(i)	Provision of funds and equipment to undertake research	57	2	41	60	1	37
(ii)	Provision of support staff to assist in research	80	31	19	46	< 1	23
(iii)	Provision of study leave	27	1	64	34	9	61
(iv)	Use of background in research as a criterion for appointment	23	1	67	35	9	63
(v)	Use of research as a criterion in promotion	21	-	65	10	14	90
(vi)	Association of research company with the institution	89	52	10	32	2	16
(vii)	Establishment of research consultancies within the institution	52	26	45	59	3	15
(viii)	Provision of postgraduate research programs	76	4	22	40	2	56
(ix)	Publication of an institutional research report	45	15	48	47	7	38
(x)	Provision of information about research in the annual report	22	7	65	38	14	55
(xi)	Holding of seminars about research methodology	74	19	24	49	1	32
(xii)	Holding of seminars to present research results	62	3	36	43	2	54
(xiii)	Allowance for research time in the allocation of teaching loads	87	18	13	51	1	31

Table 23: Extent of use of funding sources for research activities (as listed by sole and principal researchers)

Funding source	% OF RESPONDENTS		
	Nil or very little	Moderate	Great or exclusive
Institutional funds			
CAE (N=134)	75	13	13
University (N=131)	28	34	39
Total (N=265)	51	23	26
State government funds			
CAE (N=121)	86	9	5
University (N=68)	59	9	16
Total (N=176)	82	9	9
Commonwealth funds			
CAE (N=126)	81	5	14
University (N=68)	59	3	38
Total (N=194)	73	4	23
Private sector funds			
CAE (N=113)	93	4	4
University (N=47)	85	13	2
Total (N=160)	91	6	3
Personal resources (excluding time)			
CAE (N=137)	33	33	34
University (N=63)	46	41	13
Total (N=200)	37	36	28
Other			
CAE (N=48)	81	8	20
University (N=33)	76	15	9
Total (N=81)	80	11	10

Table 24: Amount of external funding obtained for research activities

Amount	PERCENTAGE OF ACTIVITIES		
	CAE (N=75)	University (N=98)	Total (N=173)
Up to $999	33	17	24
$1,000 - $4,999	41	38	39
$5,000 - $9,999	11	14	13
$10,000 - $14,999	1	5	4
$15,000 - $19,999	1	7	5
$20,000 - $29,999	1	8	5
$30,000 or more	11	8	9
Not specified	-	2	1
TOTAL	100	100	100

Table 25: Extent to which availability of funds was necessary to fulfilling each project's aims

	PERCENTAGE OF ACTIVITIES		
	CAE (N=178)	University (N=146)	Total (N=324)
Not at all or to a small extent	39	14	28
To some extent	25	23	24
To a great extent	35	64	48

Table 26: Extent to which scope of research projects restricted by lack of funds

	PERCENTAGE OF ACTIVITIES		
	CAE (N=103)	University (N=82)	Total (N=185)
Not at all or to a small extent	17	20	18
To some extent	67	44	67
To a great extent	17	37	25
TOTAL	100	100	100

Table 27: Adequacy of funding for various aspects of research: percentage of activities for which funding has been adequate

Aspects of research	PERCENTAGE OF ACTIVITIES		
	CAE (N=148)	University (N=121)	Total (N=269)
Collection of data	63	67	65
Equipment	63	61	62
Analysis of results	56	74	64
Dissemination of results	58	70	64

Table 28: Modes of dissemination used for research results

Modes of dissemination	PERCENTAGE OF ACTIVITIES		
	CAE (N=128)	University (N=119)	Total (N=246)
(i) Articles in academic/professional journals	81	92	87
(ii) Book or monograph, book chapter(s)	22	42	32
(iii) Report to funding agency	45	47	46
(iv) Internal institutional report	38	42	40
(v) Conference papers	85	91	88
(vi) Workshops	51	42	47

Table 29: Groups to which results disseminated

Groups	PERCENTAGE OF ACTIVITIES		
	CAE (N=121)	University (N=96)	Total (N=217)
(i) Individual staff members in your institution	85	89	87
(ii) Teacher educators in other institutions	63	47	56
(iii) School teachers	61	63	62
(iv) Teacher employing authorities	27	23	25
(v) Participants in the study	72	81	76
(vi) College/university governing body	33	30	32
(vii) Board of Teacher Education	12	9	11
(viii) Other external agency(ies)	41	38	40

Table 30: Breadth of dissemination of results

Level of dissemination	PERCENTAGE OF ACTIVITIES		
	CAE (N=148)	University (N=89)	Total (N=237)
Local	68	79	72
Statewide	39	47	42
National	64	80	70
International	32	81	51

Table 31: Outcomes of research

Outcomes	PERCENTAGE OF ACTIVITIES		
	Not at all	In progress	Satisfactorily achieved
(i) Improvement to your own teaching			
CAE (N=163)	14	34	53
University (N=130)	19	32	49
Total (N=293)	16	33	51
(ii) Development of programs within the institution			
CAE (N=152)	20	54	26
University (N=110)	36	40	25
Total (N=262)	27	48	25
(iii) Contribution to policy within the institution			
CAE (N=140)	61	29	10
University (N=100)	56	33	11
Total (N=240)	59	31	10
(iv) Improvement to schooling practice			
CAE (N=150)	31	51	18
University (N=111)	30	48	23
Total (N=261)	31	49	20
(v) Addition to the research literature			
CAE (N=165)	13	49	38
University (N=137)	13	31	56
Total (N=302)	13	41	46
(vi) Contribution to teacher education generally			
CAE (N=151)	22	57	21
University (N=122)	25	55	20
Total (N=273)	23	56	21

Table 32: Suggested future research topics in teacher education (a summary of selected responses to Section VI of questionnaire)

Figures in brackets indicate number of topics suggested.

Teacher education (general)

A total of 57 topics was suggested by 54 people:

- Quality/effectiveness/efficiency of programs (11)
- Evaluation of programs (3)
- Student teacher perceptions of (1)
- Relevance to classroom (1)
- Aspects of most worth (1)
- Alternative college courses (1)
- Methods in (11)
  (mentioned were: autonomous learning, modelling "good" classroom practice, CAL, alternative methods, effective methods, relationship to student attitude to teaching, models of teaching, case theory, process consultancy, methods in maths education courses, and in teaching of assessment)
- For particular groups of students (5)
  (minority groups - 3, postgraduate students - 1, remote areas - 1)
- Curriculum of (3)
  (general, role of "basics", skills of behavioural analysis and management)
- Adapted to needs of individual students (1)
- Suitable for:
  - future/21st century (5)
  - change in schools (1)
  - P-10 curriculum (1)
  - junior high integrated courses (1)
- Impact of information revolution
- To promote anti-sexist and anti-racist teaching (1)
- Sexual inclusiveness of (1)
- Cross-cultural (1)
- Employability of disabled people in (1)
- Administration of (e.g. staff/student ratio, timetabling) (3)
- Institutional abstraction in (1)
- Inquiry-oriented (1)
- Unspecified (1)

Pre-service teacher education

Forty-four topics suggested by 41 people:

- Evaluation of:
  - programs (1)
  - appropriateness/effectiveness of subjects/units (2)
  - outcomes (longitudinal studies) (1)
  - relationship to graduate performance (5)
  - graduates' perceptions of (e.g. longitudinal studies) (2)
  - quantity/quality in (1)
- Comparison/comparability of courses, relative effectiveness of various programs (4)
- Content and presentation of (1)
- Innovation in (1)
- Design of courses (e.g. integrated program approaches, extent, emphasis and sequencing of aspects) (3)
- Most effective ways of preparing teachers (2)
- Idea of teacher apprenticeship (1)
- Role of practising teachers in (2)
- Overcoming the "teach as you were taught" problem (1)

Table 32: (contd)

Methods in:
- use of technology in (1)
- methodology (1)
- effectiveness of lecture/workshop/ prac. combination (1)
- value of exams and lecture mode (1)

As preparation for:
- P-10 curriculum (1)
- multicultural classroom (1)
- curriculum decision-making (1)

Preparation of science teachers (1)
Disciplinary demands on learning in (1)
Student teachers:
- helping them learn at tertiary level (2)
- coping with their varied backgrounds (1)
- development of skills (1)

General (4)

School/field experience

Eighty-seven topics suggested by 77 people:

General/non-specific (20)
Supervision (teachers and college staff):
- e.g. training of supervisors, qualities of (16)

Impact/effect/outcomes/role/value of (on student teachers' qualities and skills on teacher development) (20)
Structure, models of (5)
School-based pre-service teacher education (3)
Cost-effective replacement for, alternative approaches to (3)
Rating of student teachers (2)
Types of (2)
Quality of (1)
Content of (prac. curriculum) (1)
Time on task in (1)
Amount (1)
Timing (1)
Amount of small group teaching (1)
Matching of students and environment (1)
Arrangement (1)
Latent knowledge in (1)
Internship versus microteaching (1)
Student:pupil relationships (1)
Host teacher - student teacher interaction (interpersonal skills) (1)
Teacher attitudes to pre-service teachers (1)
Student teacher stress:
- general (1)
- effects of relaxation on (1)
- control of (1)

Models of initial teacher education

Nine topics suggested by 9 people:

Alternative/different models of teacher preparation (3)
3+x+1 model (1)
Benefits of a four-year B.Ed. over a three-year Dip.T. (1)
A four-year B.A. and Dip.T. model which is not just an end-on course in education (1)
Effectiveness of length of pre-service teacher education (2)
The minimum time to prepare an effective teacher (1)

Table 32: (contd)

Content/curriculum of teacher education

Twenty-eight topics suggested by 22 people:

General (2)
Particular content areas:
- liberal education/studies (2)
- curriculum and school ethos for 15-18 year olds (2)
- peace studies (1)
- ethics (1)
- sexism (1)
- Asian studies (1)
- foreign language methodology (1)
- the arts (1)
- applied communication studies (1)
- teaching process skills transferable across curriculum areas (1)
- strategies for teaching children to think (1)
- special education for regular classroom teachers (pre-service) (1)
- Aboriginal and Islander studies (compulsory pre-service unit) (1)

Theory of education:
- making students aware of, training teachers in relation to, social and political issues (3)
- theory and assumptions (1)
- strategies for teaching human development and learning effectively (1)
- fundamental processes of child development, to involve and be communicated to student teachers (1)

Changes to, in response to social issues (1)
Upgrading of (1)
Items which could be dropped from (1)
Effect of students' content knowledge on teaching success (2)

Selection/entry/recruitment to teacher education

Thirty-seven topics suggested by 35 people:

General (6)
Processes, procedures, methods (10)
Criteria/requirements:
- general (7)
- desirable personality/non-academic characteristics (3)
- Other than or additional to TE score (3)

Prediction of successful teachers (1)
Success factors for Aboriginal and Islander students in teacher education (1)
Relationships between entry and exit credentials (1)
Entry behaviours of applicants (1)
Factors affecting recruitment (1)
Entrance of male candidates (1)
Pre-course and during course selection (1)
Encouraging prospective teachers to spend at least a year outside the education system before entering teacher education (1)

Theory/practice dichotomy or link

Twelve topics suggested by 11 people:

Links, linking, relationship between theory and practice or between college coursework and practice teaching in pre-service teacher education (10)
Theory/practice dichotomy (2)

Table 32: (contd)

Student teacher characteristics

Twenty-seven topics suggested by 22 people:

Attitudes, values (e.g. changes in during pre-service course):
- general (3)
- to teaching of maths (1)
- to teaching (1)
- to autonomous teaching/learning (1)
- awareness of moral values (1)

Educational characteristics, academic level:
- literacy/language skills (4)
- numeracy/maths skills (3)
- lack of arts education, impact of (1)
- general (1)

Styles of thinking, thinking skills, learning modes (3)
Personal characteristics (1)
Expectations re teaching, learning, knowledge (1)
Capacity for self-reflection (1)
Motivation (1)
Self-concept (development of) (1)
Conception of their Australian identity (1)
Profile and needs of mature-age and evening students (1)
Profile and needs of TAFE students (1)

In-service teacher education

Twenty-six topics suggested by 27 people:

General (2)
Encouraging action research by teachers (2)
Promoting professional growth (1)
Factors affecting professional development (1)
In early career years (extension of induction) (1)
For curriculum changes (1)
Needs of teachers (1)
Needs of small/non-metropolitan/rural schools (1)
Effectiveness of:
- general (5)
- establishing effective models of in-service (2)

Particular area of professional growth (in-service for):
- technological competence of current teachers (1)
- methodology, content and delivery - equipping older teachers with newer ideas on (1)
- diagnostic skills of experienced teachers (1)

Run by institutions:
- independently (i.e. by colleges or universities, not Education Department) run INSET in all subject areas (1)
- B.Ed. fourth year - focus practical? (1)

Recurrent:
- need for update education, continuing education (1)
- ongoing teacher development and adaptation in a changing world (1)

School-based (2)
In touch with reality? (1)

Induction, beginning teachers

Twenty-one topics suggested by 20 people:

Induction:
- general (3)
- linkage with pre-service teacher education (2)

Table 32: (contd)

- programs (1)
- effective methods of (1)

Beginning teachers:

- needs of (e.g. competencies needed) (3)
- development, adjustment, performance, effectiveness of (3)
- approach to teaching of - link with pre-service education (1)
- effectiveness of college courses and (1)
- socialisation of (1)
- sustaining of (1)
- special orientation program for (e.g. reduced workload) (1)
- perceptions of help (actual and needed) in orientation (1)
- ethnography of (1)

Other inductees:

- desocialisation of (particularly new administrators) (1)

Teacher development in general

Fifty topics suggested by 44 people:

Development through pre-service and in-service education (including longitudinal studies) (9)
Strategies for (e.g. mentoring - 1, on-site coaching -2, clinical supervision - 1) (6)
Socialisation of teachers (5)
Process of (1)
Nature of courses (1)
Development or change in:

- teaching style/techniques (2)
- attitude, professional attitude (2)
- competence, skill (2)
- ability to deal with increased complexity in teaching (1)
- coping with change (1)
- understanding of discipline areas (1)
- philosophy and practice (1)
- critical thinking, a critical/reflective orientation to teaching (4)
- personal theories of teaching (1)
- self-concept (1)
- professional autonomy (1)
- interpersonal skills (1)
- understanding of learning (1)
- professional knowledge (1)

Personal development (e.g. relationship with effective teaching, balance with professional development, provision for in programs) (4)
Master teacher role (e.g. feasibility of establishing in relation to teacher education) (2)
Relationship between level of formal qualifications and professional competence (1)

Teacher educators

Eight topics suggested by 7 people:

In-service for, special training of, professional development of (4)
Professional status of (1)
Use of research on teaching (1)
Distance from schools (1)
Values of (1)

Other topics

Eleven topics suggested by 8 people:

Climates of teacher education institutions (1)

Table 32: (cont'd)

Assessment strategies in teacher education and relationship with development of teaching competencies (1)
Role of educational theory in teacher development (1)
Study of professional ethics in teacher education (1)
Teacher education and politics:
- social engineering through teacher education (1)
- changing social context (1)

Teacher education - financial considerations:
- cost of educating teachers in various fields (1)
- bleak financial future (1)

Table 33: Percentage of respondents indicating each level of agreement or disagreement with each statement concerning research

		Strongly disagree %	Disagree %	Uncertain %	Agree %	Strongly agree %
(i)	Research is an important expectation in my job (N=374)	14	20	18	27	22
(ii)	In my job, what research I do is determined by others (N=374)	43	37	12	6	2
(iii)	I need resources, other than time, to undertake research (N=379)	4	8	7	46	34
(iv)	I would undertake more research if I could be released from other duties (N=381)	3	4	8	35	50
(v)	My research does or would benefit from my working as a member of a team (2 or more people) (N=378)	4	8	22	46	20
(vi)	It would be useful to have more opportunities to attend workshops on research topics (N=379)	3	6	13	54	24
(vii)	I would welcome regular information on sources of funding for research (N=377)	2	3	8	51	35
(viii)	I would welcome the setting up of an information exchange or clearing house for research in progress in other institutions in Queensland (N=386)	2	1	9	51	37
(ix)	I would be prepared to contribute information on research in progress to a central clearing house (N=374)	1	2	12	50	35
(x)	Avenues for dissemination or publication of my research findings are inadequate (N=366)	12	32	32	18	7
(xi)	I would welcome the opportunity to contribute to research as part of an inter-institutional team (N=372)	3	5	27	45	19

Table 34: Extent of agreement of college of advanced education and university respondents with statements concerning research (CAE: N=284-296; University: N=80-84)

		DISAGREE OR STRONGLY DISAGREE		UNCERTAIN		AGREE OR STRONGLY AGREE	
		CAE %	Uni %	CAE %	Uni %	CAE %	Uni %
(i)	Research is an important expectation in my job	42	3	21	5	37	92
(ii)	In my job, what research I do is determined by others	80	81	12	11	8	8
(iii)	I need resources, other than time, to undertake research	12	9	8	7	81	84
(iv)	I would undertake more research if I could be released from other duties	7	7	10	4	83	90
(v)	My research does or would benefit from my working as a member of a team (2 or more people)	13	8	21	25	66	66
(vi)	It would be useful to have more opportunities to attend workshops on research topics	7	16	11	18	82	66
(vii)	I would welcome regular information on sources of funding for research	5	9	8	8	88	84
(viii)	I would welcome the setting up of an information exchange or clearing house for research in progress in other institutions in Queensland	2	2	9	7	89	90
(ix)	I would be prepared to contribute information on research in progress to a central clearing house	3	2	13	7	84	91
(x)	Avenues for dissemination or publication of my research findings are inadequate	41	54	35	21	25	25
(xi)	I would welcome the opportunity to contribute to research as part of an inter-institutional team	9	8	26	30	66	64

APPENDIX III

LIST OF PARTICIPANTS IN RESEARCH SYMPOSIUM

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APPENDIX IV

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